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ABSTRACT

This document is the first in a series of ten related works investigating the experience of New York State in the implementation of performance based teacher education (PBTE) and consists of preliminary data gathering efforts to describe the persons applying for individual assessment for certification and a survey to determine their receptivity to individual assessment emphasizing demonstration of competence. The survey is restricted to individuals desiring certification on the basis of (1) accumulation of sufficient credits, though they have been earned from one or more institutions with approved programs, (2) reciprocity of licensing provisions with other states, and (3) completion of teacher education sequences and experience in states that have no licensing reciprocity with New York State. Two major questions addressed in the survey are (1) how much time and (2) how much money are applicants willing to expend in completing assessment activities. The first chapter of the report presents historical notes to the survey. Chapter two focuses on the development of forms for recording data and a set of recording procedures. Chapter three presents a summary and analysis of data obtained, presented in three subsections, covering the major questions, several hand tallies to manipulate the data, and the survey. Chapter four presents suggestions for utilizing the survey results. The appendix to this document is an abbreviative form of the entire appendix, printed in a separate volume, and contains instrumentation, recording instructions, various codings, identification of errors in sampling, analysis of errors, and identification of cards corrected. (MJB)

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**A Descriptive Profile of Individuals
Applying for Certification Through
Individual Review Procedures**

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**Ira Tolbert
Elizabeth H. Clark**

Teacher Education Developmental Service / John Ether, Director

Spring 1976

State University of New York at Albany

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A DESCRIPTIVE PROFILE OF INDIVIDUALS
APPLYING FOR CERTIFICATION THROUGH
INDIVIDUAL REVIEW PROCEDURES

By

Ira Tolbert and Elisabeth H. Clark

August 30, 1976

Teacher Education Developmental Service
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Preface

In July 1970, Teacher Corps requested all 5th cycle programs to begin developing Competence-Based Teacher Education programs. In July 1971, Teacher Corps required that all programs funded be competence-based. Since that time, Teacher Corps has been a major force in the development, demonstration and implementation of CBTE.

In 1972, the New York State Board of Regents set, as a goal, the establishment of teacher certification that ensures possession and maintenance of demonstrated competence on the part of teachers. The movement to CBTE in New York State should be completed by 1980.

These two facts come together quite naturally.

"What can be learned from the experiences in New York State as the transition is made? What help can be provided educational leaders in all other parts of the nation as a result of the New York State experience?"

We at the State University of New York at Albany were given the opportunity to attempt a response to those questions. An inter-disciplinary group of faculty and advanced graduate students in the School of Education accepted that responsibility. This volume is one of a group written as a result of that acceptance.

The various volumes reflect the dimensions of the investigation.

A series of six volumes with the overall title of Factors Affecting the Institutional Development of CBTE Programs, gathered extensive information from the various teacher training institutions concerning the intra-institutional approach to the state mandate. The sub-titles of the volumes indicate the wide range of concerns investigated and reported. These sub-titles are: Descriptive and Summary Report, Process Environment Factors, Organizational Change Factors, Decision Making Factors, Leadership Factors and Technical Assistance Factors.

One other report, entitled A Case Study in CBTE Program Development from the Perspective on Inter and Intra Organizational Conflict, presents an in-depth analysis of the response of one institution to the CBTE mandate. Four teacher training institutions, each with a long history of teacher preparation, did not file a revised program with the State Education Department and this study is the report of one such institution.

Through an analysis of the conflicts encountered in the process and documentation in the form of correspondence, the question of what can be learned from this institution's unique response is investigated.

Another volume, Factors Affecting CBTE Program Development, reports data relating to institutional perception of problems related to program development. Institution of higher education and State Education Department perceptions are reported and compared. An additional dimension of this report is an analysis of the State Education Department's proposal review process.

The final question the research group addressed reflected a concern for that group of people seeking teacher certification but who were not affiliated with a registered program. Who are they? What preparation do they have? Data responding to these and other such questions is reported in this volume, "A Descriptive Profile of Individuals Applying for Certification Through Individual Review Procedures."

Describing this volume is extremely difficult. It attempts to report two different, but closely related sets of data. The first describes the population seeking certification in New York State through individual negotiation and appraisal. As the reader will determine, though the question is simple, securing and analyzing the data was not.

The second set of data reported is the perceptions of the population concerning the various factors involved in individual review when competence-based teacher education (sic certification) is the general mode.

The reader may complain about the extensive data reported. Because this is the first time such data has been collected and because of the wide variety of data, a decision was made to include more rather than less. (A 261 page appendix is being published as a separate volume.)

The authors of this volume, Ira Tolbert and Elizabeth Clark, did a magnificent job. Quite often they became as intrigued with the process as with the data being supplied. Indeed quite a lot of the material reported discusses the process.

Directing and coordinating this effort has been one of the most exciting experiences of my professional life. Acknowledgments are too extensive to attempt. Suffice it to say that cooperation of faculty, students, people from so many campuses in the State, our support staff, etc., was truly phenomenal.

It is our hope that we have, indeed, provided information to help educational leaders throughout the nation to judiciously consider CBTE and, if appropriate, to successfully implement that system.

John A. Ether
Professor of Education
Project Director

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CHAPTER 1

This descriptive profile of applicants seeking certification in New York State is the first portion of a larger and broader study of assessment. It is restricted, for example, to those individuals desiring certification on the basis of (1) accumulation of sufficient credits to warrant certification, although the credits have been earned from one or more institutions with approved programs, (2) reciprocity of licensing provisions with other states through compact agreements, and (3) completion of teacher education sequences and experience in states which have declined to become members of the Compact involving twenty-eight states¹.

Generally individual review of requests to issue certificates enabling persons to engage in teaching, supervision, administration, or auxiliary services supporting the educational program is required when a person is unable to provide evidence that an approved program has been completed, perhaps in a single institution. In instances where individuals complete approved programs it is likely that most respective certificates are granted as a result of the relationship between the colleges and the State Education Department. Historically, the colleges facilitate the processing of certificates as a result of this relationship.

¹Actually, thirty-two (32) states are involved in the Compact, but four states that have drafted enabling legislation have not enacted contracts. These states are Minnesota, the District of Columbia, South Carolina and Iowa. Both Alaska and Indiana have limited their involvement in the Compact.

There are at least three reasons underlying the need for this report. Both the Teacher Education Developmental Service and the Division of Teacher Education and Certification, State Education Department, converge on several points of interest. And the information contained in this report may enable them to develop new ways of complementing each other during the years ahead.

First, New York State is one of several states attempting to modify its teacher training programs and, in the end, its certification process. To accomplish this it will be necessary to change the form, content, and processes on which certification is based. Although all programs must continue to be registered with or be approved by the State Education Department, the shift, more than likely, will emphasize the granting of a certificate on the basis of demonstration of competence by performance instead of completion of courses. This dramatic shift suggests the possibility that some candidates not enrolled in a teacher preparation program may seek certification to function as a teacher, administrator on the strength of their overall academic backgrounds, their experience and insight. If this projected shift occurs, the path to certification would have to be broadened considerably. To sustain this shift, it may be necessary to alter some existing arrangements and relationships; it could include a significant amount of differentiation of the roles of elementary and

secondary schools, their staff, community agencies, other professionals, higher education institutions, and regulatory agencies.

Change is anticipated in New York, particularly in the mode of preparation for teachers and other professionals and the manner in which they are awarded licenses to function. As early as 1972 the Board of Regents, State of New York, transmitted their proposals covering possibilities to the Governor and to the Legislature in a document designated as the Regents Tentative Plan for the Development of Post-Secondary Education. Two sections of the document foreshadow the projected shift we have referred to; the Regents indicated their desire to ensure the public of teacher competence, the major element in the process of increasing student learning.

Secondly, the Teacher Education Developmental Service (TEDS) was established in September, 1973 to assist institutions preparing proposals for initial or re-registration of their teacher training programs. Moreover, the Teacher Education Developmental Service was also obligated to help institutions involved in implementing competence-based programs described in a variety of ways. In these particular instances, however, their assistance was also prompted by a mandate requiring institutions to convert their programs to competence-based by 1980 according to a timetable developed by the Division of Teacher Education and Certification. Notification of dates

for submission of proposals was forwarded by Dr. Vincent C. Gazsetta, head of the Division. Among those persons contacted were Presidents of institutions with Teacher Education Programs, Teacher Education Contacts, and others interested in accreditation of their programs. Institutions with elementary and special education programs were scheduled to submit proposals by February 1, 1975. This process will be completed with the submission of proposals for Occupational and Special Subjects in 1979.

Last, internal documents periodically developed by the Division of Teacher Education and Certification covering the number of certificates issued, areas of certification, and identification of colleges involved in this process provide some basic data to illustrate the dimensions of the problem addressed in this report. However, there are gaps in the information provided by routinized procedures in the State Education Department. Additional information relevant to the study has been sought through the use of a questionnaire.

During the calendar year of 1974 the Division of Teacher Education and Certification issued 77,388 certificates and certificate extensions! These certificates are issued in such areas as elementary education, secondary academic subjects, special subjects, occupational education, handicapped, pupil

personnel, administration and supervision, specialist, and an omnibus category, other areas. 28,718 certificates were issued through the individual review process!

Any projected assessment system which anticipates assisting such a large and potentially diverse group will generate at the outset some questions which need to be answered. These questions may be in regard to the type of relationship the Department wants with its clients, appropriateness of activities developed to discharge responsibilities and a host of other important and/or ancillary matters.

Organization of the Report

This descriptive profile is oftentimes designated as the Assessment Study. In actuality this report is the first of three installments which together round out the study. The second phase of the study will focus on governance procedures involving associated constituencies, i.e., teachers, administrators, university personnel, and their bargaining units, while the third phase, which could be coterminous with the second, will be used to develop instruments for the overall process of assessing the qualifications of personnel.

It should therefore be understood that there is a certain amount of legitimate "teasing" associated with the descriptor Assessment Study at this time. The word assessment usually connotes evaluative activity of some kind, as it will when the final phases of the study are completed. At this moment,

however, it will be sufficient for us to reiterate that we are referring to a three phase study, each phase of which will form an element of the overall data required to develop a new, or to substantially modify, an older assessment system of certification. Procedures to accomplish this will take a little more developmental effort -- and human will.

This study consists of preliminary data gathering efforts to describe the persons applying for individual assessment and a survey to determine their receptivity to individual assessment emphasizing demonstration of competence. Although the survey covers several different issues, two major questions are addressed: (1) How much time are applicants willing to spend completing assessment activities? And (2) how much money are they willing to spend to support these activities? Development of institutional processes and procedures to oversee these activities, and development and field testing of instruments will be the central issues during the second and third phases.

Some preliminary work regarding the problems institutions face in complying with the State mandate has been completed by the Teacher Education Developmental Service, while four colleges within the state have articulated some of the problems involved in implementing parity decision-making. The outlook is good for combining both of these efforts under the auspices of the project.

We have attempted to paint a broad picture depicting the content of our work. The first chapter provides the background for this report. It focuses specifically on the major goals we have been responsible for meeting since September, 1975.

Some brief historical notes are provided in this chapter. These notes refer to the introduction of competence-based teacher education in New York State and, more importantly, to the State mandate requiring modification of teacher education programs by 1980. A brief history of the relevant aspects of our work is also provided as well as the guiding questions for the study.

In the second chapter we focus on the development of forms for recording the data and a set of recording procedures. Although there is a limited amount of overlap in one or two areas, the specific details of the history of these efforts are considered distinctive enough to merit inclusion.

The third chapter contains a summary of the data and an analysis of the information presented. The data is presented in three sub-sections: one to cover the major questions, a second including several hand tallies or eyeball inspections to manipulate the data, and the survey. Each chart or series of charts has the relevant question appended to the top of it. Where possible we have been able to present them as a layout: the question is numbered and stated on the page preceding the

chart(s). The question is, in addition, repeated above the analysis of the data, and the data is then provided for your examination. In the last chapter of the report we attempt to draw several lessons which might be learned from our work and to delineate some opportunities to utilize our efforts during the final phases of the study. The complete appendix has not been added to copies for popular consumption; that is, a major portion of it, i.e., all of the codes used, has been omitted. Interested persons may review it on request in the Teacher Education Developmental Service Research Library, or they may request the materials for a more leisurely inspection.

Charts have been prepared to provide a visual answer for the questions generated. These include:

- (1) What percentage of applicants completed undergraduate and graduate degrees in New York State?
- (2) Do out-of-state applicants come largely from contiguous states or are they widely dispersed from other states?
- (3) What percentage of applicants are male-female?
- (4) What is the percentage of males-females in certification areas as SDA, etc.?
- (5) What is the percentage of males-females by age range, area, and level of certification? What is the most representative age in each group?
- (6) Which colleges are represented (and how often) at the undergraduate level?
- (7) How many applicants were granted more than one of the selected certifications?

How many certifications did applicants report and what was the locus (New York, New York City, Compact, other) of each certification?

- (8) What percentage of applicants come from the Compact states? What is the percentage by state and sex?
- (9) How many applicants have New York City and New York State certification?
- (10) How many applicants have studied abroad? Which countries are most represented?
- (11) What kind of experiences have the applicants had?
- (12) How many applicants moving to New York State are probably returning home?
- (13) How many applicants received their bachelor's degrees when they were 25 or older?

The following questions to be completed by hand operation/eyeball inspection:

- (14) How many out-of-staters in the sample are actually working?
- (15) What percentage of applicants reside in the major cities of New York State?
- (16) How much time is involved in completing the certification process?

An explanation is provided with each chart where interpretation might present problems. Where explanation would largely belabor the obvious, the question is listed twice: once on one or more pages batching them along with an analysis, and at the top of each chart developed. This procedure should facilitate the reading of the document; interested readers may wish to detach the charts, peruse whatever explanation is necessary, and ruminate on ways of improving them.

From the beginning of our efforts in September, 1975 up to April, 1976 we had speculated on the utilization of computers and special programs and languages which could organize and synthesize information. Throughout the stages of this project we have discussed these possibilities with representatives at the Computer Center of the University. Shortly after we organized our data to prepare for keypunching, work was begun on instructions to clarify matters for the programmers. For each of the questions listed above a separate set of instructions was drafted and forwarded to them. The programmers assigned to us were able to follow our instructions, make suggestions to improve our work, and to provide special assistance in resolving errors we considered obvious.

Before the data was run on the Statistical Package for the Social Sciences (SPSS) format we examined the computer printouts to identify what we termed "obvious errors" in the primary and secondary samples. One-hundred thirty-one (131) possible errors were found and a list was developed specifying the problem on the recording form by identification number, columns where the errors were suspected, a description of them, and designation, i.e., of primary or secondary sample (See Tables 1-3 in the Appendix).

Discussion of this particular problem with our programmers subsequently meant that we could not identify applicants whose card(s) contained errors unless the total sample was checked.

The 131 errors previously mentioned were reduced to 51. From the printout a list was developed specifying the identification number of the applicant and the identification of the variable on the card(s). Space was left to insert check marks (X) for recording or keypunching errors in addition to a brief explanation (See Tables 1, 2, and 3 in the Appendix).

A second check was conducted on the 51 forms to reduce the amount of error. An examination of the printout enabled us to identify the applicants as well as the errors in several different categories: state, year of birth, multiple certification, dates for conferral of degrees or effective and expiration dates of certificates. The possible errors we designated from the printout reduced the obvious errors to 18. Then, the files were re-checked at the Division of Teacher Education and Certification on June 8, 1976 before they were keypunched for the second time. We attempted to reduce the number of errors by checking a percentage of forms regularly during the recording sessions, by conducting an efficiency analysis of errors (carried out by the supervisor), and inspecting the printouts to ascertain errors still outstanding.

Perhaps studies like this are never totally free of errors. More than likely the amount of information we collected contains additional errors which we have failed to detect. We believe our team has made a conscientious effort to record the data correctly, but it is possible for anyone to make an

occasional error recording information involving potentially 22,080-112,500 items.

The minimal number of items required to complete a form is ten (10). This would only hold for applicants completing degrees recently and who have in addition only attended one college. Completion of forms for other applicants require information for recording one quarter, half, three quarters or all items. When the number of actual errors detected are placed against these figures, our errors are small and almost inconsequential. These figures and a hypothetical figure of 5% for errors are available in Table 4.

In the fourth chapter we have attempted to describe some additional ways to utilize the data. For the most part the possibilities available are common sense derivations which would occur if any number of different persons had our opportunity. Any additional work requiring interviews and utilization of sophisticated sampling techniques is enhanced by the way we developed the data base and the materials in the Teacher Education Developmental Service Research Library. It should be possible for a person to review the coding instructions and categories and to get a good grasp of the data, or at least one sufficient for stratified sampling, etc. For individuals listed in the complete pool residing in standard metropolitan statistical areas, telephone numbers may be easily obtained (in some instances only if the place of residence has not changed) by recording

TABLE 4
Percentage of Errors In Primary and Secondary Samples

Minimal Number of Recorded Items Necessary to Complete a Form (10)

	PRIMARY SAMPLE (N=1500)		SECONDARY SAMPLE (N=708)	
<u>Errors Detected (51)</u>	<u>No. of Items of Information</u>	<u>% Error</u>	<u>No. of Items of Information</u>	<u>% Error</u>
Forms with minimal number completed (10)	15,000	.0034	7,080	.0072033
Forms with 1/4 of items completed (19)	28,500	.0017894	13,452	.0037912
Forms with 1/2 of items completed (38)	57,000	.0008947	26,904	.0018956
Forms with 3/4 of items completed (57)	85,500	.0005964	40,356	.0012637
Forms with every item recorded (75)	112,500	.0004533	52,500	.0009714

5% Error Allowed

5% Error Allowed

75 / 1,500	.05	35 / 708	.5
750 / 15,000	.005	354 / 7,080	.05
1,452 / 28,500	.57	672 / 13,452	.0499553
2,850 / 57,000	.05	1,345 / 26,904	.0499925
4,275 / 85,500	.05	2,017 / 40,356	.0499801
5,625 / 112,500	.05	2,690 / 53,808	.049925

Total Sample Number
 51 errors/2208 = .2318181

Primary Sample 51/1,500 = .034

Secondary Sample 51/708 = .072

such numbers from directories available in any university or public library. Each keypunched card contains information such as name, address, social security number, type of certification granted, and the amount of time involved in granting it.

We believe that it is easy to misunderstand the problems that arise in carrying an operation like this through to the end. An enormous amount of time has been expended developing forms, checking and rechecking forms, and reading in areas for connections with theory which might be useful. A certain level of sensitivity is necessary (or appreciation of subtlety) to make a data collection unit function smoothly. This kind of work is tedious and time-consuming but not dull. A rudimentary understanding of computer capability is useful to one who begins with a series of speculative questions and a desire to see things through to the end.

Brief History and Cost of Project

We have had our share of heartaches like any other project. But we have also had many moments for high comedy, or hijinks, or fun. Our efforts have taken us down some "less traveled roads" and "blind alleys", particularly considering potential areas of supportive theory. We have perused the literature on mobility, job satisfaction, and reflected on some legal issues; but these endeavors, while professionally exciting and personally rewarding, have not turned out to be as directly connected to the

study as we initially anticipated. They do contain, however, some interesting possibilities for future work, and our position regarding these possibilities is stated in the final section.

In Tables 5 and 6 below we have listed a capsule history of the project and an estimate of cost involved in producing this document. We have singled out roughly fourteen events as significant events throughout the period of operation. This linear depiction of events does not adequately capture the moments when activities in essence overlapped.

(1) Preliminary meetings were held with various staff members in the Division of Teacher Education and Certification, State Education Department. By meeting with them we intended to reduce background gaps, to acquire an understanding of how certification issues are handled, and to raise particular questions perhaps warranted by the study. Staff members with experience and responsibility for supervising records, developing policy within the division, and the relationship of compact states exchanged their views with us and expressed an interest in our results.

For example we spent some time discussing the Compact State relationship, specifically the reciprocal arrangements whereby certification in one state increases the possibilities for certification in one or more of the other twenty-eight (28) states. We pursued the issue of whether or not anyone knew how well the compact relationship was working.

TABLE 5

Selected History of Project

<u>Description of Event</u>	Months of the year											
	1975	9	10	11	12	1	2	3	4	5	6	1976
(1) Preliminary and/or Periodic Meetings With Representatives of State Education Department												
(2) Development of Recording Forms												
(2) Trial Run -- Recording Data												
(3) Development of Training Package, Revision of Form and Recording Instructions												
(4) Revision of Form and Recording Instructions												
(5) Commencement and Termination of Data Collection												
(6) Inspection of Data to Rectify Errors												
(7) Correction of Forms and Inclusion of Information Not Recorded and/or Missed During Inspection of Data												
(8) Space Sample Techniques Used to Get Sample												
(9) Key punching, Checking for Errors												
(10) Drafting of Instructions for Programmer												
(11) Analysis of Printout for Errors, Correction of Errors												
(12) Development of Questionnaire												
(13) Computer Runs on Data												
(14) Draft of Profile												
24(15) Computer Run by Bureau of Education Data Systems, State Education Department												

TABLE 6
Cost of Operation

<u>Staff*</u>			
Supervisors		\$1,903.26	
Typist		2,827.41	
<u>Data Collectors</u>			
		5,008.76	
<u>Keypunching</u>			
		625.01	
<u>Computer</u>			
Programmer		75.00	
Printouts		200.00	
<u>Supplies (Estimated)</u>			
(1) Forms for recording		60.06	
(2) Number of copies of report		366.75	
(3) Other		200.00	
<u>(a) Piloting of Questionnaire</u>			
Materials (forms, envelopes)		16.26	
Stamps (includes return postage)		30.94	(119 x 26¢)
Telephone calls		10.00	
<u>(b) Final Survey</u>			
Materials (forms, envelopes)		103.78	
Stamps		292.00	(1,200 x 26¢)
Postcards		63.00	(700 x 9¢)

*This figure does not include the salary for one full-time and one half-time staff person.

Fortunately a member of the Division of Teacher Education and Certification served as the director of the Interstate Certification Project. Orientation was provided generously in terms of the difficulties and complexities involved, not so much of the drafting of protocol statements governing the processes, instead of getting the legislation favorably reviewed by the State legislatures. Certification is the legal process which enables a person "to teach in and provide other professional services for the schools which all children and adolescents are required by law to attend."¹

The value of reciprocal certification arrangements is viewed in several different ways. First, some would argue that flexible arrangements enhance teacher mobility. If qualified and able teachers are free to move, there is a greater likelihood that school districts will increase their options to hire better personnel. Secondly, an analysis of certification requirements on a state-by-state basis probably enables one to make some judgments about ways to improve teacher education programs and regulations regarding entry into the profession.* Last, a uniform and/or flexible certification process operative in most states is helpful in (1) reducing the impact of rigid procedures restricting movement of educational personnel, (2) establishing a legal frame of reference to cover rights, and (3) providing increasingly better opportunities to meet seasonal cries of supply and demand.²

¹Undated "Values of the Interstate Certification System," p. 1.

²Ibid, pp. 2-6.

(2) A review was made of materials provided by the Division of Teacher Education and Certification. This packet contained several items: the original application form used to apply for certification; descriptions and analyses of work carried out by the Interstate Certification Project; basic data on the number, area, and locus of state institutions represented in the certification process. This information assisted us in the early stages, especially in determining incongruence between information we wanted and the limitation of only initially obtaining data from application forms.

The first draft of a form for recording data was developed and used by two staff members to pinpoint unanticipated problems during an examination of applications on the pending shelves (ca. 4,000). We uncovered several problems during our trial run which led to subsequent changes of the form. A related purpose of the trial run was to determine how adequately a person would function when coding data over a fairly long period of time. The problem of developing forms and recording data is covered in more detail under Development of Forms and Data Collection in Chapter 2.

(3) A training package was designed and implemented on October 20, 23, 30 and 31, 1975 for approximately thirty (30) people. Two-thirds of them demonstrated enough proficiency to justify hiring them and, then evaluating them further on the job. After the trial run, we had concluded that, in

addition to accuracy, we needed a team of recorders with a reasonable level of speed in completing forms to finish recording early in 1976.

(4) Data collection commenced on October 24, 1975 and ended on January 13, 1976. Our intention was to record data to cover all applicants granted certification in 1974. As we proceeded, however, we discussed the length of time this would take in recording the data, keypunching, problems involved in correcting errors, and completing the project on time.

We pondered for some time on how representative the data was and whether or not specific sampling techniques would be more helpful. Both of these matters will require a lot of consideration before firm answers can be given.

Our team of recorders started with the last letters in the alphabet, recording from all the tiers in Rows 10-11. The data was available in folders according to row (1-11) and tier (1-8). In all 524 tiers were available for selecting data.

After estimating the time it would take to secure the data from the files and whether it was likely to be qualitatively different if we collected data from every available file, we decided to change our procedures. We altered our data collection by considering the amount of work completed at the time, and by considering practical matters such as

maintaining efficient recording. It was not felt that we would get more dramatic information by increasing the amount of information we collected regarding the ages of applicants, colleges attended, experiences, etc. This meant in effect that we would record the data from all of the files in Rows 10-11. To equalize this it was necessary to record data from all of the files in Rows 1-2. Next we decided to alternate on combined rows by taking even numbers from one tier, odd numbers from the other until we completed a row. This procedure was reversed considering the row in tandem until we completed our inspection of the files. Last, as the circumstances demanded, our problems, i.e., coding the professional experience of applicants and individuals with certification in New York City.

A substantial and valuable piece of work on the efficiency of our recorders was maintained and periodically reviewed with us by one of our supervisors. Work completed by our recorders was carefully checked each night for errors. And an efficiency rating was developed for each recorder to assess continuous performance.

To summarize, a broad description has been presented of our experiences developing this profile of persons applying for individual review of credentials to attain certificates in New York State. We have referred briefly to the context of our work, i.e., the movement toward competence-based education, and included as well a brief history of the project and

some incidents we encountered during our work. Without these details and those in Chapter 2 covering Development of Forms and Data Collection Procedures, etc., it would be difficult to determine what we have done or how well we have accomplished our task.

We would like to stress once more several items mentioned previously. First of all, you will more than likely see several terms repeated throughout the study, such as reported information, compact states, and contiguous states.

(1) Reported Information connotes our own knowledge that it is not possible to conclude that the person completing the application form provided all the information at that time.

(2) Compact States (or compact state relationship) is used to refer to states involved in reciprocal arrangements whereby eligibility for certification is increased for persons from member states. Twenty-eight states are included: Alaska, California, Connecticut, Delaware, Florida, Hawaii, Idaho, Indiana, Kentucky, Maine, Maryland, Massachusetts, Nebraska, New Hampshire, New Jersey, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, and Wisconsin. The other states are by obverse iteration non-compact states.

(3) Contiguous States border New York and include Massachusetts, Connecticut, Vermont, Pennsylvania and New Jersey.

(4) To complete the profile we decided to use 1974 as the base year. Our data was selected from a total pool representing 38,396 certifications rather than persons. In Table 7 the computations are worked out with comments or notation as required.

TABLE 7
Certificates Available for Individual Evaluation³

Numbers	Description
28,718	Number of certificates issued by the Division of Teacher Education and Certification
*-8,872 ¹	Certification areas excluded
19,946	Available pool for data collection
-9,950	47.5% Represents number of certificates on shelves not sampled
9,996	52.5% Represents number of certificates to account for
-450	4.5% of 9,996 applications out-of-date
9,546	Number of certificates unaccounted for
-8,591	Number of certificates accounted for
955	
-113	Spoiled. According to our figures, there are 113 certificates issued per 100 persons
*842 ²	Certificates to account for by checking against the approximate number of folders in the pending file

*¹ The exclusion of 8,772 probably includes some certificates granted through the Board of Cooperative Educational Services (BOCES).

*² Many of the remaining 842 certificates unaccounted for may be files activated in 1975, i.e., in pending file.

³Our figures are based on the report of Number of Certificates and Certificate Extensions Issued January 1, 1974 Through December 31, 1974, February 1, 1975.

The 8,591 certificates accounted for represent 7,571 individuals according to our figures allowing for a ratio of 113 certificates per 100 individuals. It should be remembered that the State Education Department bulletins specify number of certificates issued rather than the number of individuals involved.

The total number of certificates issued by individual assessment amounts to 38,396: provisional (12,588) and permanent (25,808). To derive the figure of 28,718 for the available pool, it was necessary to subtract 9,678, the number of certificates issued by the Department involving preliminary screening and cooperative work through district superintendent evaluation at the Board of Cooperative Educational Services (BOCES).

We have reduced our population, or rather restricted the possibility of including them in the main sample of 1,500 and the secondary sample of out-of-staters (708) by utilizing a list of all areas of certification by the Division of Teacher Education and Certification and other criteria to include only applicants with degrees. A combination of these factors enabled us to eliminate (1) applicants certified as a result of cooperative work between BOCES and the State Education Department (as noted above), (2) personnel such as teaching assistants who do not have a bachelor's degree, (3) Pupil Personnel staff and personnel certified under (a) old requirements, (b) extensions, and (c) specific certification granted

to fewer than 19 people, i.e., teaching Japanese.

Our reasons for excluding areas follows, along with identification of specific certificates and numbers. These data are based on information provided by the State Education Department.

Justification for Exclusion

- (1) Some applicants did not have complete files.
- (2) Examination of the seven categories of extension revealed too few cases per category.
- (3) Twenty-six (26) categories represented 3,299 cases, some of which do not require a bachelor's degree; eleven (11) categories used old requirements and represented 1,219 cases. Combined the cases total 4,518.
- (4) The original certificate was not granted in 1974.
- (5) There were too few cases of internships.
- (6) Certification did not require a bachelor's degree.
- (7) The application was dated prior to 1972.

Exclusion of Applicants by Area of Certification

Possible Exclusions

(1) Japanese	(1)
(2) Polish	(2)
(3) Swahili	(1)
(4) Tagalog	(1)

TOTAL

5

Special Subject

(1) occupational education	(13)
(2) agriculture	(37)
(3) recreation	(19)
(4) health occupations	(108)

Special Subject (cont'd.)

(5) technical subjects, technical and related subjects	(11)
(6) trade subjects	(192)
(7) trade shop subjects	(89)
TOTAL	478

Others

(1) applicants processed by district superintendent and forwarded to the SED	9,678	Possible Duplication
(2) extensions of previous certificates	ca. 351	
(3) applications processed on basis of college advisement/evaluation	34,387	Never Included
(4) certain certificates	4,518	
(5) duplicate certificates	1,415	
(6) internship certificates	132	
(7) teaching assistants	1,317	Possible Duplication
(8) pre-1972 applications (44)	ca. 1,535	

Considering the total number of applications processed in 1974, our sample was selected from more than 20,000 possible certificated persons.

Pupil Personnel

(1) attendance teacher	(45)
(2) guidance counselor	(765)
(3) school attendance teacher	(167)
(4) school counselor	(236)
(5) school dental hygiene teacher	(12)
(6) school nurse teacher	(247)
(7) school psychologist	(180)
(8) school social worker	(153)
TOTAL	1805

Administration and Supervision (all based on old requirements)

(1) secondary school principal	(108)
(2) elementary school principal	(56)
(3) vocational high school principal	(10)
(4) supervisor of secondary education	(88)
(5) supervisor of elementary education	(27)
(6) supervisor of vocational education	(9)
(7) director of vocational education	(11)
TOTAL	309

Others

(1) adult education certificates	(868)
(2) adult education renewals	(485)
(3) exchange teacher	(1)
(4) visiting lecturer certificates	(5)
(5) military service and illness extensions	(471)
(6) statements of continued eligibility	(64)
(7) permits authorizing supplementary service for which no certification exists	(27)

TOTAL

1921

(5) A space sample technique was employed to select 1,500 individuals out of the 7,540 forms recorded. The applications were checked, re-checked, and consecutively numbered from 1 to 7,540. To obtain the primary sample every fifth application was selected until we accumulated 1,500. Following selection of the primary sample, we checked the pool to determine the number of out-of-state applicants remaining in it. Because the number was so low (708), a subsequent decision was made during a Teacher Education Developmental Service meeting to also select all out-of-state applicants remaining in the original pool of 7,540.

In the next chapter your attention will be drawn to development of forms and coding procedures. Several vital subtopics will be used to trace the history of this process. Among them are supervision and coordination, training and orientation, complex procedures, and preparation for keypunching.

CHAPTER 2

Initially it was necessary to become familiar with the forms and procedures used by the State Education Department's (SED) Division of Teacher Education and Certification (DivTEC) in reviewing the credentials of persons seeking certification. It was determined that certification could be granted in one of three ways:

1. By review of credentials within DivTEC in Albany;
2. By review of credentials in a Regional Certification Office and subsequent recommendation to DivTEC; or
3. By recommendation of a college or university operating a program approved by the SED for preparation of people to teach or to fill other educational positions.

It was decided that the study should encompass the certifications granted during one calendar year. Since the data collection started in the fall of 1975, the last complete year that could be used, given the filing procedures at DivTEC, was 1974 and so that year was selected.

Limitations -- Reduction of Possible Sample

Given the large number of files on the shelves (approximately 150,000), time constraints dictated that the study be limited to about half the available files for the one year. This was accomplished by pulling files from alternate shelves. Otherwise, data collection would have

extended at least into March of 1976.

A study of the files during a field test indicated that there was complete information only in the files of those persons applying directly to DivTEC for certification (see #1 above). Therefore, the study was limited to the files of those persons only. In addition, it was judged that addresses provided on applications dated prior to 1972 might be of questionable value in locating persons for follow-up activities, so data was recorded only for applications dated 1972, 1973, or 1974.

It should be noted that files on open shelves are maintained by DivTEC for five years following any communication with a person. The year of most recent contact -- letter, application, telephone call, etc. -- is pencilled on the outside of the folder below the person's name. In selecting files for the study all "74" files on alternate shelves were pulled.

Because of the procedure described above, files of some persons granted certification during 1974 were eliminated from the study. If a file was activated subsequent to December 31, 1974, that file would carry a "75" on it and would not be included in this study even though there may have been certification granted during 1974. It was determined that the time required to pull the thousands of "75" files and check each one to see whether or not any certification had been granted during 1974 could not be justified. The number of granted

certifications thus eliminated from the study is not known.

In some cases the number of certificates granted under methods 1 and 2 outlined above was less than 19. A decision was made that areas in which fewer than 19 certificates were granted upon individual evaluation of credentials would be eliminated from the study, with the exception of handicapped.

It was further decided that certification in the areas of adult education, internships, pupil personnel, vocational and technical education, extensions of previous certifications, and teaching assistant would be excluded from the study as well as certification granted under old requirements.

After the exclusions detailed above had been determined, 46 categories remained. Forty-four of the categories had both provisional and permanent certification possible, two of the categories had only permanent.

Elimination of Some Information on the Application Form

After studying the application form used by the SED, it was decided that a few items of information on the form were irrelevant to the study. The items eliminated from consideration were those that provided information about:

1. work experience related to pupil personnel, technical, and vocational certification -- all areas eliminated from the study;

2. citizenship -- lack of citizenship precludes granting of permanent certification; and
3. criminal record.

Of the eleven possible categories for information on the application form, four were eliminated: Occupational or Practical Experience (exclusive of teaching); Citizenship; Additional Information (on felonies); and the Affidavit.

Form Development and Coding

The next steps in preparation for data collection were the development of a form for recording the data and establishment of some basic elements of the coding system. Ideally, for purposes of efficiency, the recording form should have contained all the data on one side of a sheet of paper. That did not prove to be possible on an 8 1/2" x 11" sheet. Initially the first 41 items were placed on the front of the sheet, the balance on the reverse side. (A sample of the initial form may be found in the Appendix.)

All coding was to be numerical and the first set of codes developed were for:

1. locus: of residence, educational institution, certifications reported, and teaching, administrative, or supervisory experience;
2. the certifications included in the study (at this point one had been omitted by mistake);
3. educational institutions, by locus -- initially about 2,000;
4. number of credits reported; and
5. degrees reported.

Field Tests

When the above had been prepared, they were field tested by two project persons at the SED. The field test was done for two major purposes:

1. to test the recording form
2. to develop familiarity with the files and the filing system at SED.

Results of the field test were:

1. the recording form was revised so that the content on the first side of the application form and the corresponding items (1-57) on the first side of the recording form were the same;
2. the placement of items 2-6 on the upper right hand corner of the recording form were moved somewhat to the left to expedite recording;
3. regional certification recommendations were eliminated from consideration because the files were incomplete;
4. pre-1972 applications were eliminated;
5. it was decided to use "72" to identify New York City certification;
6. one certification area was added to the list, making the total of 46. (See the Appendix for a complete listing.)

With the revised recording form, a second field test was conducted and no additional changes were deemed necessary.

In summary, then, the data being reported in this study is that obtained from a 20% sample plus approximately 700 remaining out-of-state applications from the following population: approximately half of the persons granted 46 selected certifications during 1974 by the New York State Education Department who applied directly to the Department after December 31, 1971.

Training Sessions

It was apparent from the field test that the complexity of the operation made a recording supervisor necessary to:

1. make necessary preparations for each recording session (pull files, sharpen pencils, distribute recording materials, etc.);
2. maintain records (shelves completed, hours worked, efficiency and production of recorders, etc.);
3. assist recorders; and
4. check forms for completeness and accuracy after recording sessions.

Therefore, before any recording could start, it was necessary to recruit and train a supervisor as well as teams of recorders. Most of the recorders were undergraduate and graduate students at the State University of New York at Albany. The supervisor held a master's degree.

A two-hour training session was developed by project persons, scheduled for two different sets of potential recorders, and held during the third week of October, 1975. At the end of each two-hour session, those people who had demonstrated sufficient grasp of the procedures and adequate clerical skills were scheduled to start recording at DivTEC the next week. Some people attended a second training session in order to develop satisfactory initial proficiency. A few additional recorders were individually trained later in the fall. (The materials used in the training sessions are in the Appendix of this report.)

The main thrust of the training sessions was to familiarize the potential recorders with the SED application form, the recording form, and the coding system as then developed. This was attempted through the use of mock copies of applications that were developed sequentially to introduce the recorders to the complexities of the forms gradually.

Orientation at DivTEC

Before the recorders could begin recording from actual files at SED, it was necessary to have further training. The first two recording sessions at SED for each recorder concentrated on correct procedures:

1. how files were removed from and replaced on the shelves;
2. how necessary information was located in each file;

3. how questions were answered;
4. how material in each file was kept in exactly the same order in which it was found;
5. why only one file was taken by a person in order to avoid any mixing of file content and to maintain correct alphabetical order on the shelves; and
6. why desks were to be left as they were found.

Each recorder used his or her own section of cardboard, approximately 8" x 16", to identify the spot from which s/he had removed a file from the shelf. Recorders removed file folders only from sections that had been prepared by the supervisor or under his supervision.

Data Collection

Initially it was planned to have data collection occur Monday through Friday from 5:00 PM to 9:00 PM and Saturday from 9:00 AM to 5:00 PM. Access to the files by a team of recorders was possible only after regular SED office hours. However, the proposed schedule was never fully implemented because of the following basic reasons:

1. the DivTEC required that an SED employee be present (There was one SED employee working on the project and that person could not work all evenings plus Saturday);
2. the demands of data collection were such that it was not possible to work efficiently for a full day.

Most weeks data collection occurred two or three evenings for four hours and Saturdays for about six hours. Most recorders

worked only a part of the Saturday hours. There were generally between 5 and 8 recorders present, the supervisor, and one of the project persons or, in December and January a DivTEC employee.

The preparation work prior to each recording session required that one or two people start an hour before the recorders. At first the supervisor and one of the project persons did the initial preparatory work. Later it was done by the supervisor and the most efficient of the recorders. All the files with a "74" marked on them were pulled in a given section, about three feet, of the open shelves and then checked individually by the supervisor, a project person, and/or a recorder assisting the supervisor to determine whether or not the content of the file was appropriate for inclusion in the study. Thus, when recorders obtained files from the shelves, if the screening process had been done accurately, the recorders immediately set about recording the information.

Data collection began the last week in October, 1975 and continued into January, 1976. To expedite completion of the data collection, DivTEC employees were hired to be present for the December and January recording sessions.

Coding

When recording of the data started, coding had not been developed for the following: (1) description of the certification(s)

reported (items 45, 49, 53, 57) and (2) description of teaching/administrative/supervisory experience (items 59, 60, 63, 64, 67, 68, 71, 72); because of the complexity of the information being reported. After about 1,000 forms had been completed, there was sufficient information available for one project person to start developing the additional coding.

When recording started, it was known that coding for institutions and degrees was incomplete. At first, the recorders wrote the description of any institution or degree that was not listed on their coding sheets. Then, outside of the recording sessions, the supervisor reviewed the forms, assigned and recorded code numbers. Later, at the supervisor's suggestion, code numbers were assigned immediately by the supervisor and used by the recorders as the need arose during the recording sessions. The supervisor maintained an up-to-date listing of degree codes. Many of the additional institutions were added to their coding sheets by the recorders. However, the only complete list was that compiled by the supervisor.

Additional suggestions of changes in coding made by the supervisor and adopted included the following:

1. addition of six boxes to record the numbers of additional certifications granted rather than using a separate recording sheet for each certification granted as was done initially (item 3);

2. use of 1 for "no" multiple; for more than one, the actual number of certifications granted (item 4);
3. use of 1 for female and 2 for male (item 5);
4. use of 99 for expiration date of reported permanent certification (items 44, 48, 52, 56);
5. use of 1 for "No" and 2 for "Yes" (item 74); and
6. addition of an item, #76, to record excess information, i.e., in the categories of institutions, certifications reported, and experience (see below).

When the complex coding was developed in December for the descriptions of reported certification and teaching/administrative/supervisory experience, it was not provided to the recorders. Rather, the coding was done by the supervisor and/or a project person for all the forms in order to make interpretations as consistent as possible.

Prior to keypunching, it was decided to limit the amount of information punched for each form, because in a large percentage of cases there was no information. The limits imposed were four institutions, three certifications reported, and four experiences reported. Thus, if a form had more than four, three, or four, respectively, in the three categories, the form contained information in excess of that which was going to be recorded on the computer cards. Item 76 thus came into existence to identify which of the three areas, if any, would need to be reviewed manually during data analysis.

Later it was decided to eliminate item 74, "Have you previously applied to the New York State Education Department for a teaching certificate?", because the information reported for that item on the application forms did not appear to be accurate in a large number of cases. The information in item 76 was then transferred by a project person to item 74 on all forms selected for keypunching.

Preparation for Keypunching

1. In order to pull a sample from the 7,540 recorded forms, the total set was numbered from 0001 to 7540, in alphabetical order. The number recorded became the identification number for each form and replaced the social security number as item number one insofar as keypunching was concerned.

2. Every fifth form was selected for a 20% sample of the recorded forms that had been filed alphabetically.

3. All additional out-of-state forms were removed from the alphabetically filed recorded forms, providing a set of out-of-state applicants.

4. Each of the forms described in #2 and #3 above was reviewed by project persons for completeness, consistency, and apparent accuracy of recorded information, e.g., year of birth; two recordings of the social security number in agreement; bachelor's degree reported, etc.

5. As a result of #4 above, about 83 forms were identified as in need of checking. The files were pulled at DivTEC and necessary corrections made on the forms.

CHAPTER 3

In the first two chapters attention has been drawn to the background of this report, and recording procedures we used to collect the data.

Data which has been compiled by computer operations and organized by manual manipulation is presented in three sections of Chapter 3. In general the first section consists of the study questions (16) and supporting tables. Each table has been numbered to conform to the study question, i.e., 1a, 1b, 1c and so on. Several additional tables which had to be developed from the data have been identified by title when this step seemed necessary. Otherwise the tables are specifically related to the question(s) under consideration and the tables are simply labeled "Primary" (for data in the space sample of 1,500) or "Secondary" (on the sample of all out-of-staters from the population of 7,540). The second section contains several tables and some additional information we were able to codify and organize as a result of eyeball inspection.

The last section contains the results of the survey. A brief statement precedes the display of the data and it provides a description of individuals involved in the piloting of the questionnaire.

A brief statement describing a particular method we used to answer a study question or a point of interest regarding the data has been attached to each of the sixteen questions. In instances where we have not provided the convincing data we anticipated, a review of the set of instructions to the computer programmer would be sufficient to give the reader an idea of what we were attempting to do. Whatever codes a reader needs to be familiar with are generally explained after each study question or on each chart. States, countries, and types of degrees are abbreviated, and male and female are generally provided beside the codes. Usually errors which occurred in recording or keypunching are designated on the tables.

In the last chapter of the report an effort will be made to briefly outline some opportunities for further study and to summarize the data presented in this section of the report.

I

STUDY QUESTIONS AND DATA
COMPILED BY COMPUTER PROGRAMS

INTRODUCTION

Precise answers to Questions 1 and 12 are not possible at this time. An indication of the type of data we anticipated providing can be gleaned from the set(s) of instructions to the programmer. The crosstabulated data we examined for degrees completed in New York State was not controlled for potential permutations. For example, how many applicants completed only an associate's degree in New York and a bachelor's degree outside the state? How many applicants completed all of their degrees in New York? How many natives of New York State completed all of their degrees outside the state? These types of questions cannot be answered with ease until degrees are recoded.

A recording form precedes the data available for Questions 1 and 12. The reader must understand that the recorders were taking information from the standard application form and using codes to record most of the data on forms which were developed. Although it is tempting to assume that attendance at a college or degree earned would be provided sequentially, i.e., from the earliest to the latest or from the highest to lowest degree, this was not the way such information was available. In fact some of the information was scrambled so that course work completed prior to earning a bachelor's degree was recorded second. Secondly the sequence of numbers we used for recording do not match the variable numbers used by the staff in the

Computer Center. We had to work with the information supplied. Frequently this meant that we laid out the printouts according to the manner in which recording items (codes and actual numbers such as dates used by our recorders) and variables identified by the Computer Center corresponded. Item numbers and the variable numbers are matched on the form for Questions 1 and 12.

QUESTION 1 and
QUESTION 12:

- (A) What percentage of applicants completed undergraduate and graduate degrees in New York State?
- (B) How many applicants moving to New York are probably returning home?

(A) Of the 2,208 applicants in the primary and secondary samples (1) 208 completed associate's degrees in New York, (2) 1,336 completed bachelor's degrees, and (3) 605 completed advanced degrees. Probably some of the individuals who completed associate's degrees also completed bachelor's degrees within the state, but we cannot claim that this assumption is an ironclad fact. What we can point to, however, is the overwhelming percentage of applicants in the primary sample whose address indicates they are residents of the state and the high degree of education completed in the state by individuals in both samples.

However, there is no one-to-one correspondence between the degrees completed and an individual per se. If we had been able to control for individuals completing only 1, or 2, or 3 degrees, we could have equated degrees with them.

Even with this restriction, the percentages for degrees completed in New York State approximate those for the amount of education completed per variable for New York State. The data for Question 1 was extracted from crosstabulated data covering degrees earned in the respective states; degrees

completed were coded from 1 to 97. The number of degrees earned were recorded four times, once for each variable for state (32 for New York). This process was repeated for each state on a 71 by 97 chart; the number(s) of degrees earned were totaled only for New York State. Thus, the figures below are based on data taken from a crosstabulation of degrees completed by state for the entire sample:

<u>Degree Completed</u>	<u>Sample Size</u> <u>(N=2,208)</u>	<u>Percent</u>
Associate	208	9.42
Bachelor	1,336	60.51
Masters	586	26.54
Doctorate	19	.86

(B) It was also necessary to review crosstabulated data to identify the states where degree(s) and course work were completed. Altogether there were seven spaces on the recording form to report education completed. For most of the items on the form the words "code," "code for items," and "variable" are used interchangeably. Codes are numbered from 1 to 75; however, for individuals who attended more than four institutions, acquired more than four certificates, or reported more than four professional experiences, the variable of excess information was used to compress the information and to avoid using three punched cards for each person. In addition, the programmer used "variable" to identify every item of information beginning with institution (Variable 1) and ending with excess information (Variable 49).

Spaces were provided on the form for associated variables to reflect the institution attended, state, amount of credits, type of degree, and date completed.

Variable		Variable		Variable		Variable		Variable	
01	Institution	02	State	03	Amount of Credits	04	Type of Degree	05	Date Completed
06		07		08		09		10	
11		12		13		14		15	
16		17		18		19		20	

It was possible for our data recorders to code this information for attendance at seven colleges. If an applicant attended more than seven colleges, this information was recorded on the form below the space provided. Before the data was submitted for keypunching, the codes for excess information (Variable 76) were developed to reduce the number of items (variables) on cards to be keypunched.

In order to infer how many applicants moving to New York are probably returning home the variables for state (02, 07, 12, 17) and degree completed (04, 09, 14, 19) were associated. States and countries outside the United States were previously coded from 1 to 71 and degrees were coded from 1 to 97; the code for New York was 32.

The data consist of sixteen tables covering both samples under two headings: (1) Frequency of Education Completed By State: Variable 2, etc., and (2) Degrees Completed By Associated

Variable, i.e., Variable 04. Examination of this data revealed that nearly 60% of all education completed per variable occurred in New York State for the primary sample; the amount of education completed per variable for the secondary sample ranged from 5.8% to 26.4%.

Variable	PRIMARY (N=1,500)			SECONDARY (N=708)		
	Number	Percent	Code (0)	Number	Percent	Code (0)
02	864	57.6	-	187	26.4	-
07	843	56.2	229/15.3%	148	20.9	162/22.9%
12	508	33.9	763/50.9%	66	9.3	426/60.2%
17	221	14.17	1,158/77.2%	41	5.8	585/82.6%
TOTAL	2,436			442		

A 0 was recorded by the computer for all spaces not coded for state or when a degree was not completed. When the figure under Percent is considered, an adjustment should be made for Variables 07, 12, and 17. For example, if the data for Variable 12 is considered, 763 or 50.9% of the applicants did not have codes in the second space provided for education; thus the figure for percent represents 33.9% of the remaining 50% of applicants with information coded in those spaces. Because of the expenses involved in attending out-of-state colleges, it is perhaps not unreasonable to conclude that associate's and bachelor's degrees completed suggest previous and/or current residency in the state.

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1
☐ ☐ 3
 Cert.

Name _____

Address _____

Date Application Received _____

Date Certification Granted _____

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 1
 _____ ☐ ☐ 2
☐ ☐ 3
 Y N ☐ 4
 M F ☐ 5
☐ ☐ 6

Variables to Match Recording Codes

Institution

State Credits

Degree Date

_____	☐ 01 ☐ 7	☐ 02 ☐ 8	☐ 03 ☐ 9	_____	☐ 04 ☐ 10	☐ 05 ☐ 11
_____	☐ 06 ☐ 12	☐ 07 ☐ 13	☐ 08 ☐ 14	_____	☐ 09 ☐ 15	☐ 10 ☐ 16
_____	☐ 11 ☐ 17	☐ 12 ☐ 18	☐ 13 ☐ 19	_____	☐ 14 ☐ 20	☐ 15 ☐ 21
_____	☐ 16 ☐ 22	☐ 17 ☐ 23	☐ 18 ☐ 24	_____	☐ 19 ☐ 25	☐ 20 ☐ 26
_____	☐ ☐ ☐ 27	☐ ☐ ☐ 28	☐ ☐ ☐ 29	_____	☐ ☐ ☐ 30	☐ ☐ ☐ 31
_____	☐ ☐ ☐ 32	☐ ☐ ☐ 33	☐ ☐ ☐ 34	_____	☐ ☐ ☐ 35	☐ ☐ ☐ 36
_____	☐ ☐ ☐ 37	☐ ☐ ☐ 38	☐ ☐ ☐ 39	_____	☐ ☐ ☐ 40	☐ ☐ ☐ 41

TEACHING CERTIFICATES

Description	State	Eff. Date	Exp. Date	Subjects/Areas
_____	☐ ☐ 42	☐ ☐ 43	☐ ☐ 44	_____ ☐ ☐ 45
_____	☐ ☐ 46	☐ ☐ 47	☐ ☐ 48	_____ ☐ ☐ 49
_____	☐ ☐ 50	☐ ☐ 51	☐ ☐ 52	_____ ☐ ☐ 53
_____	☐ ☐ 54	☐ ☐ 55	☐ ☐ 56	_____ ☐ ☐ 57

TEACHING/ADMINISTRATIVE/SUPERVISORY EXPERIENCE

Community	State	Subjects	Levels (K-12)	Years
_____	☐ ☐ 58	_____	☐ ☐ 59	☐ ☐ ☐ ☐ ☐ ☐ 60 ☐ ☐ - ☐ ☐ 61
_____	☐ ☐ 62	_____	☐ ☐ 63	☐ ☐ ☐ ☐ ☐ ☐ 64 ☐ ☐ - ☐ ☐ 65
_____	☐ ☐ 66	_____	☐ ☐ 67	☐ ☐ ☐ ☐ ☐ ☐ 68 ☐ ☐ - ☐ ☐ 69
_____	☐ ☐ 70	_____	☐ ☐ 71	☐ ☐ ☐ ☐ ☐ ☐ 72 ☐ ☐ - ☐ ☐ 73

Y = ☐ 74

☐☐-☐☐-☐☐ 75

Coder's
Initials

Primary Sample
Frequency of Education Completed by State: Variable 02

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
1. AL	6	.4	.4	.40	39. RI	6	.4	.4	97.50
3. AZ	2	.1	.1	.50	40. SC	7	.5	.5	98.00
4. AR	2	.1	.1	.70	41. SD	2	.1	.1	98.10
5. CA	6	.4	.4	1.10	42. TN	5	.3	.3	98.50
6. CO	4	.3	.3	1.30	43. TX	5	.3	.3	98.80
7. CT	31	2.1	2.1	3.40	44. UT	3	.2	.2	99.00
8. DE	2	.1	.1	3.50	45. VT	6	.4	.4	99.40
9. FL	15	1.0	1.0	4.50	46. VA	5	.3	.3	99.70
10. GA	5	.3	.3	4.90	48. WY	9	.6	.6	99.30
13. IL	21	1.4	1.4	6.30	49. WI	12	.8	.8	97.10
14. IN	16	1.2	1.2	7.50	50. WY	2	.1	.1	97.20
15. IA	5	.3	.3	7.80	51. DC	17	1.1	1.1	97.40
16. KS	10	.7	.7	8.50	52. PR	6	.5	.5	97.90
17. KY	6	.5	.5	9.00	53. Nova				
18. LA	4	.3	.3	9.30	54. Scotia	1	.1	.1	99.00
19. ME	6	.5	.5	9.80	55. Ontario	2	.1	.1	99.10
20. MD	17	1.1	1.1	10.90	56. Quebec	1	.1	.1	99.20
21. MA	79	5.3	5.3	16.20	57. Latin				
22. MI	21	1.4	1.4	17.60	58. America	2	.1	.1	99.30
23. MN	4	.3	.3	17.90	59. Asia	7	.5	.5	99.80
24. MS	3	.2	.2	18.10	60. Mid-				
25. MO	10	.7	.7	18.70	61. East	2	.1	.1	99.90
27. NB	4	.3	.3	19.00	72. Error	1	.1	.1	100.00
28. NV	1	.1	.1	19.10					
29. NH	5	.3	.3	19.40					
30. NJ	54	3.6	3.6	23.00					
31. NM	1	.1	.1	23.10					
32. NY	864	57.6	57.6	60.70					
33. NC	18	1.2	1.2	61.90					
34. ND	2	.1	.1	62.00					
35. OH	73	4.9	4.9	66.90					
36. OK	6	.4	.4	67.30					
37. OR	1	.1	.1	67.50					
38. PA	87	5.8	5.8	97.10					
					TOTAL	1500	100.0	100.0	

TABLE NUMBER 1412a

Primary
Degrees Completed By Associated Variable
Variable 64

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
0.	359	17.3	17.3	17.30	17.M Ed	4	.3	.3 98.30
2.AA	73	4.9	4.9	22.10	17.BSE	6	.4	.4 98.70
3.AS	11	.7	.7	22.90	47.BM	2	.2	.2 98.90
4.Other A	2	.1	.1	23.00	48.BEE	1	.1	.1 99.00
5.BA	629	42.6	42.6	65.60	51.BAE	1	.1	.1 99.10
6.BFA	6	.4	.4	66.00	52.ABS	1	.1	.1 99.10
7.BS	329	21.9	21.9	87.90	53.BS ME	1	.1	.1 99.20
8.BS Ed	2	.5	.5	93.40	54.BME	4	.3	.3 99.50
9.Other B	2	.1	.1	93.50	59.MSLS	1	.1	.1 99.50
10.MA	4	.3	.3	93.80	65.BS EL	1	.1	.1 99.60
11.MAT	1	.1	.1	93.90	66.BS Mus	2	.1	.1 99.70
14.MS	5	.4	.4	94.30	BS EL			
15.MSED	3	.2	.2	94.50	91. Ed	2	.1	.1 99.90
18.RN	1	.1	.1	94.50	99.Error	1	.1	.1 99.90
23.Ed D	2	.1	.1	94.70	99.Error	1	.1	.1 100.00
25.Other D	1	.1	.1	94.70				
27.AAS	28	1.9	1.9	96.60	TOTAL	1500	100.0	100.0
28.B Ed	6	.4	.4	97.00				
29.BBA	3	.2	.2	97.20				
30.B Mus	12	.8	.8	98.00				

TABLE NUMBER 1612b

Primary Sample
Frequency of Education Completed by State: Variable 07

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
0.	229	15.3	15.3	15.30	39. RI	5	.3	.3	99.20
1. AL	3	.2	.2	15.50	40. SC	1	.1	.1	99.30
2. AK	2	.1	.1	15.60	42. TN	7	.5	.5	99.77
3. AR	1	.1	.1	15.70	43. TX	8	.5	.5	99.30
4. CA	16	1.1	1.1	16.70	44. UT	1	.1	.1	99.30
5. CO	5	.3	.3	17.10	45. VT	5	.3	.3	99.70
7. CT	12	2.2	2.2	19.30	46. VA	6	.4	.4	99.10
8. DE	1	.1	.1	19.70	47. WA	3	.2	.2	99.30
9. FL	15	1.0	1.0	20.30	48. WV	4	.3	.3	99.50
10. GA	6	.4	.4	20.70	49. WI	12	.8	.8	97.70
11. HI	4	.3	.3	21.00	50. WY	1	.1	.1	97.40
12. IL	18	1.2	1.2	22.20	51. DC	12	.8	.8	99.20
14. IN	11	.7	.7	22.90	52. Guam	1	.1	.1	99.30
15. IA	6	.4	.4	23.30	53. PR	4	.3	.3	99.50
16. KS	7	.5	.5	23.60	54. British Colum.	1	.1	.1	99.60
17. KY	7	.5	.5	24.10	55. Quebec	5	.3	.3	99.90
20. MD	15	1.0	1.0	25.30	56. Europe 11- Latin		.7	.7	99.70
21. MA	16	1.3	1.3	26.60	56. America 1		.1	.1	99.70
22. MI	21	1.4	1.4	28.00	58. Asia	3	.2	.2	99.90
23. MN	2	.1	.1	28.10	Mid- East	1	.1	.1	100.00
24. MS	1	.1	.1	28.20					
25. MO	5	.3	.3	28.50	TOTAL	1500	100.0	100.0	
26. MT	1	.1	.1	28.60					
27. NB	4	.3	.3	28.90					
28. NV	1	.1	.1	28.90					
29. NH	2	.1	.1	29.10					
30. NJ	37	2.5	2.5	33.50					
31. NM	3	.2	.2	33.70					
32. NY	84.5	56.2	56.2	69.90					
33. NC	1	.1	.1	90.00					
34. OH	26	1.7	1.7	91.70					
36. OK	2	.1	.1	91.90					
37. OR	1	.1	.1	91.90					
38. PA	29	1.9	1.9	93.90					

TABLE NUMBER 1412b

Primary
Degrees Completed By Associated Variable
Variable 09

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)		Other			
0.	773	51.5	51.5	51.50	25. D	2	.1	.1	96.10
1. None	5	.3	.3	51.90	Other				
2. AA	5	.3	.3	57.20	26. dip.	2	.1	.1	96.70
3. AS	1	.1	.1	52.30	28. B Ed	5	.3	.3	99.60
4. Other A	1	.1	.1	52.30	29. BBA	4	.3	.3	96.90
5. BA	146	9.7	9.7	67.10	32. MBA	2	.1	.1	97.00
6. BFA	3	.2	.2	62.30	37. M Ed	24	1.6	1.6	98.60
7. BS	120	8.0	8.0	70.30	38. M Ph	1	.1	.1	98.70
8. BS Ed	29	1.9	1.9	72.20	39. JD	2	.1	.1	98.80
9. Other B	2	.1	.1	72.30	37. ESE	1	.1	.1	98.90
10. MA	187	12.5	12.5	84.80	39. MSE	2	.1	.1	99.00
11. MAT	3	.2	.2	85.00	41. MALS	5	.3	.3	99.30
12. MFA	2	.1	.1	85.10	44. MTS	1	.1	.1	99.40
13. MLS	6	.5	.5	85.70	46. MM	1	.1	.1	99.50
14. MS	114	7.6	7.6	93.30	50. MST	1	.1	.1	99.50
15. MSED	36	2.4	2.4	95.70	54. BME	1	.1	.1	99.60
16. MSW	1	.1	.1	95.70	58. M Mus	1	.1	.1	99.70
17. Other M	2	.1	.1	95.90	61. MAED	1	.1	.1	99.70
18. CAS	1	.1	.1	95.90	67. BD	1	.1	.1	99.80
24. Ph D	1	.1	.1	96.00	BS El				
					91. Ed	1	.1	.1	99.90
					MA El				
					94. Ed	1	.1	.1	99.90
					97. DDS	1	.1	.1	100.00
					TOTAL	1500	100.0	100.0	

TABLE NUMBER 1412c

Primary Sample
Frequency of Education Completed by State: Variable 12

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
0.	763	50.9	50.9	50.90	20. NJ	20	1.3	1.3	60.90
3. AZ	2	.1	.1	51.00	22. NY	505	33.9	33.9	94.80
5. CA	16	1.1	1.1	52.10	23. NC	2	.1	.1	94.90
6. CO	6	.4	.4	52.50	24. NH	1	.1	.1	95.00
7. CT	15	1.0	1.0	53.50	25. OH	12	.8	.8	95.80
9. FL	6	.5	.5	54.00	27. OR	2	.1	.1	95.90
10. GA	3	.2	.2	54.20	28. PA	19	1.3	1.3	97.20
11. HI	1	.1	.1	54.30	29. RI	2	.1	.1	97.40
12. IL	5	1.0	1.0	55.30	30. SC	1	.1	.1	97.50
14. IN	5	.3	.3	55.60	31. SD	1	.1	.1	97.60
15. IA	1	.1	.1	55.70	32. TN	1	.1	.1	97.70
17. KY	4	.3	.3	55.90	33. TX	6	.4	.4	98.10
19. ME	1	.1	.1	56.00	35. VT	6	.4	.4	98.50
20. MD	5	.3	.3	56.30	36. VA	2	.1	.1	98.60
21. MA	21	1.4	1.4	57.70	39. WI	6	.4	.4	99.00
22. MI	12	.8	.8	58.50	51. DC	6	.4	.4	99.40
23. MN	2	.1	.1	58.70	53. PR	1	.1	.1	99.50
25. MO	4	.3	.3	58.90	63. Quebec	1	.1	.1	99.60
27. NB	2	.1	.1	59.10	65. Europe	9	.6	.6	99.90
28. NV	1	.1	.1	59.10	Latin				
					66. America	2	.2	.2	99.90
					69. Asia	2	.2	.2	99.90
					Mid-				
					71. East	1	.1	.1	100.00
					TOTAL	1500	100.0	100.0	

TABLE NUMBER 1&12c

Primary
Degrees Completed By Associated Variable
Variable 14

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
0.	1260	84.0	84.0	84.00	33. M Ed	8	.4	.4 99.00
1. None	1	.1	.1	84.10	37. BSE	2	.1	.1 99.10
5. BA	26	1.7	1.7	85.80	39. MSE	1	.1	.1 99.20
6. BFA	2	.2	.2	86.00	41. MALS	4	.2	.2 99.50
7. BS	26	1.7	1.7	87.70	45. ITTP	1	.1	.1 99.50
8. BS Ed	7	.5	.5	88.20	50. MST	1	.1	.1 99.60
10. MA	67	4.5	4.5	92.70	53. BS ME	1	.1	.1 99.70
11. MAT	1	.1	.1	92.70	54. BME	1	.1	.1 99.70
12. MFA	2	.1	.1	92.90	55. AMusD	1	.1	.1 99.80
13. MLS	6	.6	.6	93.50	71. B Arch	1	.1	.1 99.90
14. MS	50	3.3	3.3	96.80	74. 6th Yr	1	.1	.1 99.90
15. MSED	14	.9	.9	97.70	87. PHB	1	.1	.1 100.00
16. MSW	1	.1	.1	97.80	TOTAL	1500	100.0	100.0
17. Other	2	.1	.1	97.90				
18. CAS	1	.1	.1	98.00				
23. Ed D	2	.2	.2	98.20				
24. Ph D	2	.2	.2	98.40				
27. AAS	1	.1	.1	98.50				
28. B Ed	1	.1	.1	98.50				
30. MBA	1	.1	.1	98.60				

TABLE NUMBER 1612d

Primary Sample
Frequency of Education Completed by State: Variable 17

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
0.	1156	77.2	77.2	77.20	39. RI	1	.1	.1	98.70
3. AZ	2	.1	.1	77.30	40. SC*	1	.1	.1	98.80
5. CA	10	.7	.7	78.00	41. SD	1	.1	.1	98.90
6. CO	3	.2	.2	78.20	42. TN	1	.1	.1	99.00
7. CT	9	.6	.6	78.80	43. TX	3	.2	.2	99.10
9. FL	2	.1	.1	78.90	45. VT	2	.1	.1	99.20
13. IL	7	.5	.5	79.40	46. VA	1	.1	.1	99.30
14. IN	8	.5	.5	79.90	49. WI	2	.1	.1	99.50
16. KS	2	.1	.1	80.10	51. DC	1	.1	.1	99.60
17. KY	2	.1	.1	80.20	52. Guam	1	.1	.1	99.60
20. MD	3	.2	.2	80.40	55. Europe	4	.3	.3	99.90
21. MA	13	.9	.9	81.30	66. Asia	1	.1	.1	99.90
22. MI	4	.3	.3	81.50	Mid-				
25. MO	3	.2	.2	81.70	71. East	1	.1	.1	100.00
30. NJ	12	.8	.8	82.50					
32. NY	221	14.7	14.7	97.30	TOTAL	1510	100.0	100.0	
33. NC	1	.1	.1	97.30					
35. OH	6	.4	.4	97.70					
37. OR	1	.1	.1	97.80					
38. PA	13	.9	.9	98.70					

TABLE NUMBER 1412d

DEGREES
Degrees Completed By Associated Variable
Variable 19

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0.	1413	94.2	94.2	94.20
1. None	2	.1	.1	94.30
2. AA	1	.1	.1	94.40
4. Other A	1	.1	.1	94.50
5. BA	4	.3	.3	94.70
7. BS	7	.5	.5	95.20
8. BS Ed	2	.1	.1	95.30
10. MA	25	1.7	1.7	97.00
11. MAT	3	.2	.2	97.20
12. MFA	1	.1	.1	97.30
14. MS	18	1.2	1.2	98.50
15. MSED	6	.5	.5	99.00
17. Other M	1	.1	.1	99.10
20. UC	1	.1	.1	99.10
23. Ed D	3	.2	.2	99.30
24. Ph D	2	.1	.1	99.50
27. AAS	2	.1	.1	99.60
29. BBA	1	.1	.1	99.70
30. B Mus	1	.1	.1	99.70
33. M Ed	1	.1	.1	99.80
41. MALS	1	.1	.1	99.90
47. MENS	1	.1	.1	99.90
49. DPA	1	.1	.1	100.00
TOTAL	1500	100.0	100.0	

TABLE NUMBER 1412e

Secondary Sample
Frequency of Education Completed by State: Variable 02

STATE	PERCENT FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
1. AL	2	.4	.4	.40	42. TN	3	.4	.4
2. AZ	1	.1	.1	.60	43. TX	6	1.1	1.1
3. AR	2	.3	.3	.80	44. UT	2	.3	.3
4. CA	7	1.0	1.0	1.80	45. VT	6	1.1	1.1
5. CO	3	.4	.4	2.30	46. VA	2	.4	.4
6. CT	32	4.5	4.5	6.80	47. WA	3	.4	.4
7. FL	16	2.3	2.3	9.00	48. WY	2	1.1	1.1
8. GA	7	1.0	1.0	10.00	49. WI	7	1.0	1.0
9. IL	12	1.7	1.7	11.70	50. DE	5	.7	.7
10. IN	12	1.7	1.7	13.40	51. PR	4	.6	.6
11. IA	6	.8	.8	14.20	52. Other	1	.1	.1
12. KS	6	.8	.8	15.00	53. New			
13. KY	10	1.4	1.4	16.50	54. Brns.	1	.1	.1
14. LA	1	.1	.1	16.70	55. Ontario	1	.1	.1
15. ME	4	.6	.6	17.20	56. Europe	2	.3	.3
16. MD	7	1.0	1.0	18.20	57. Latin			
17. MA	64	9.0	9.0	27.30	58. America	1	.1	.1
18. MI	22	3.1	3.1	30.40	59. Asia	2	.3	.3
19. MN	1	.1	.1	30.50	60. Mid-			
20. MS	1	.1	.1	30.60	61. East	1	.1	.1
21. MO	8	1.1	1.1	31.60				
22. MT	1	.1	.1	31.70				
23. NB	5	.7	.7	32.40				
24. NH	6	1.1	1.1	33.50				
25. NJ	50	7.1	7.1	40.60				
26. NM	1	.1	.1	41.70				
27. NY	187	26.4	26.4	67.90				
28. NC	12	1.7	1.7	69.60				
29. OH	47	6.6	6.6	76.20				
30. OR	3	.4	.4	76.60				
31. PA	100	14.1	14.1	90.70				
32. RI	3	.4	.4	91.10				
33. SC	6	.8	.8	91.90				
					TOTAL	708	100.0	100.0

TABLE NUMBER 1412e

Secondary
Degrees Completed By Associated Variable
Variable 04

CODE	ABSOLUTE FRFC	RELATIVE FRFC (PCT)	ADJUSTED FRFC (PCT)	CUM FRFC (PCT)				
0.	117	16.5	16.5	16.50				
2.AA	27	3.8	3.8	20.30	31.BAE	1	.1	99.70
3.AS	5	.7	.7	21.00	34.BME	4	.6	99.72
4.Other	2	.3	.3	21.30	37.CPA	1	.1	99.80
5.BA	256	36.6	36.6	57.90	38.BS Mus	1	.1	99.80
6.BFA	6	.6	.6	58.50	39.BSBE	1	.1	99.70
7.BS	199	28.1	28.1	86.60	BS El			
8.BS Ed	50	7.1	7.1	93.60	41.Ed	1	.1	99.80
10.MA	3	.4	.4	94.10	42.Error	1	.1	100.00
11.MAT	1	.1	.1	94.20	TOTAL	700	100.0	100.0
14.MS	1	.1	.1	94.40				
23.Ed D	2	.3	.3	94.60				
27.AAS	6	.8	.8	95.50				
28.B Ed	1	.1	.1	95.60				
29.BBA	3	.4	.4	95.80				
30.B Mus	10	1.4	1.4	97.50				
37.M Ed	1	.1	.1	97.60				
37.BSE	4	.6	.6	98.20				
42.BM	2	.3	.3	98.40				
46.MM	1	.1	.1	98.60				

Secondary Sample
Frequency of Education Completed by State: Variable 07

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
0.	162	22.9	22.9	22.90	42. IN	4	.6	.6	93.50
1. AL	2	.3	.3	23.20	43. TX	3	.4	.4	93.90
3. AZ	1	.1	.1	23.30	44. UT	3	.4	.4	94.30
4. AR	2	.3	.3	23.60	45. VT	4	.6	.6	94.90
5. CA	9	1.3	1.3	24.90	46. VA	9	1.3	1.3	96.20
6. CO	4	.6	.6	25.40	47. WA	4	.6	.6	96.80
7. CT	29	4.1	4.1	29.50	48. WY	3	.4	.4	97.20
9. FL	14	2.0	2.0	31.50	49. HI	6	.8	.8	98.00
10. GA	8	1.1	1.1	32.60	51. DC	5	.7	.7	98.70
11. HI	1	.1	.1	32.70	52. PR	4	.6	.6	99.30
13. IL	17	2.4	2.4	35.10	61. Ontario1		.1	.1	99.40
14. IN	9	1.3	1.3	36.40	62. Quebec 1		.1	.1	99.50
15. IA	4	.6	.6	37.00	65. Europe 5		.7	.7	100.20
16. KS	3	.4	.4	37.40	Latin				
17. KY	3	.4	.4	37.80	66. America4		.6	.6	100.80
19. ME	4	.6	.6	38.40	67. Africa2		.3	.3	101.10
20. MD	10	1.4	1.4	39.80	68. Asia 1		.1	.1	101.20
21. MA	40	5.6	5.6	45.40	Mid-				
22. MI	16	2.3	2.3	47.70	71. East 2		.3	.3	101.50
23. MN	1	.1	.1	47.80	81. Error 1		.1	.1	101.60
24. MS	1	.1	.1	47.90					
25. MO	7	1.0	1.0	48.90	TOTAL	704	100.0	100.0	
27. NB	7	1.0	1.0	50.00					
29. NH	2	.3	.3	50.30					
30. NJ	44	6.2	6.2	56.50					
32. NY	148	20.9	20.9	77.40					
33. NC	9	1.3	1.3	78.70					
34. ND	1	.1	.1	78.80					
35. OH	32	4.5	4.5	83.30					
37. OR	2	.3	.3	83.60					
38. PA	43	6.1	6.1	89.70					
39. RI	0	.0	.0	89.70					
41. SC	3	.4	.4	90.10					

TABLE NUMBER 1412f

Secondary
Degrees Completed By Associated Variable
Variable 09

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
0.	368	52.0	52.0	52.00				
1. None	6	.8	.8	52.80	23. M Ed	24	3.4	3.4
2. AA	4	.6	.6	53.40	24. MSE	1	.1	.1
3. BA	54	7.6	7.6	61.00	44. MM	2	.3	.3
4. BFA	2	.3	.3	61.30	51. BAE	2	.3	.3
7. BS	44	6.2	6.2	67.50	55. M Mus	1	.1	.1
8. BS Ed		3.2	3.2	70.80	59. MSLS	2	.3	.3
10. MA	43	11.7	11.7	82.50	64. MME	1	.1	.1
11. MAT	5	1.3	1.3	83.80	TOTAL	704	100.0	100.0
12. MLS	1	.1	.1	83.90				
14. MS	49	6.9	6.9	90.80				
15. MSED	24	3.4	3.4	94.20				
17. Other	1	.1	.1	94.40				
24. Ph D	1	.1	.1	94.50				
26. Other	1	.1	.1	94.60				
27. AAS	1	.1	.1	94.80				
29. B Ed	1	.1	.1	94.90				
29. BBA	1	.1	.1	95.10				
30. B Mus	1	.1	.1	95.20				
37. MBA	1	.1	.1	95.30				

Secondary Sample
Frequency of Education Completed by State: Variable 12

	ABSOLUTE FREQ	PERCENTAGE FREQ	PERCENTAGE FREQ	PERCENTAGE FREQ					
0.	476	60.2	60.2	60.20	43. TX	2	.3	.3	95.80
1. AL	2	.1	.1	60.50	45. VT	7	1.0	1.0	96.20
2. AZ	1	.1	.1	60.60	46. VA	4	.6	.6	97.30
3. AR	1	.1	.1	60.70	48. WV	3	.4	.4	97.70
4. CA	10	1.4	1.4	62.10	49. WI	5	.7	.7	99.40
5. CO	2	.3	.3	62.40	53. PR	2	.3	.3	99.70
6. CT	22	3.1	3.1	64.50	61. Ontario		.1	.1	99.90
7. DE	1	.1	.1	65.70	65. Europe	3	.4	.4	99.30
8. FL	6	1.1	1.1	66.80	Latin				
9. GA	4	.6	.6	67.40	66. America	3	.4	.4	99.70
10. HI	1	.1	.1	67.50	67. Africa	1	.1	.1	99.90
11. IL	15	2.1	2.1	69.60	68. Asia	1	.1	.1	100.00
12. IN	6	.8	.8	70.50					
13. IA	1	.1	.1	70.60	TOTAL	700	100.0	100.0	
14. KS	2	.3	.3	73.90					
15. KY	2	.3	.3	74.20					
16. LA	1	.1	.1	74.30					
17. ME	3	.4	.4	74.80					
18. MD	6	.8	.8	75.60					
19. MA	15	2.1	2.1	76.70					
20. MI	7	1.0	1.0	76.70					
21. MN	1	.1	.1	76.90					
22. MO	3	.4	.4	76.30					
23. MT	1	.1	.1	76.40					
24. NB	4	.6	.6	77.00					
25. NJ	78	11.0	11.0	88.00					
26. NY	66	9.3	9.3	90.30					
27. NC	1	.1	.1	90.40					
28. ND	1	.1	.1	90.50					
29. OH	11	1.6	1.6	91.10					
30. PA	21	3.0	3.0	91.10					
31. RI	1	.1	.1	91.20					
32. SC	1	.1	.1	91.30					
33. TN	1	.1	.1	91.50					

TABLE NUMBER 1&12g

Secondary
Degrees Completed By Associated Variable
Variable 14

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
0.	591	83.8	83.8	87.80				
1. None	3	.4	.4	88.20	51. BAE	1	.1	.1 99.20
2. AS	1	.1	.1	88.30	52. AMusD	1	.1	.1 99.30
3. BA	13	1.8	1.8	89.90	53. M Mus	1	.1	.1 99.40
4. BFA	1	.1	.1	90.00	54. LLB	1	.1	.1 99.50
5. BS	13	1.8	1.8	91.80	55. MME	1	.1	.1 99.60
6. BS Ed	4	.6	.6	92.40	56. CAGS	1	.1	.1 99.70
7. MA	26	4.0	4.0	96.40	57. LLB	1	.1	.1 99.80
8. MAT	4	.6	.6	97.00	58. LLB	1	.1	.1 99.90
9. MFA	1	.1	.1	97.10	TOTAL	706	100.0	100.0
10. MS	13	1.8	1.8	98.90				
11. MSED	5	.7	.7	99.60				
12. Other	2	.3	.3	99.90				
13. Ed D	4	.6	.6	100.00				
14. Ph D	4	.6	.6					
15. Other	1	.1	.1					
16. B Ed	1	.1	.1					
17. B Mus	1	.1	.1					
18. M Ed	4	1.1	1.1					
19. M Ph	1	.1	.1					

Secondary Sample
Frequency of Education Completed by State: Variable 17

CODE	ABSOLUTE FREQ	PERCENTAGE (PCT)	ADJUSTED FREQ (PCT)	COM TIME (PCT)					
0.	555	92.6	82.5	87.60	27. NC	2	.3	.3	74.70
1. AL	2	.3	.3	87.60	37. OH	2	.3	.3	97.70
2. AZ	1	.1	.1	87.60	38. PA	1	.1	.1	87.60
3. CA	6	1.1	1.1	87.60	42. TN	1	.1	.1	87.60
4. CO	3	.4	.4	87.60	43. TX	2	.3	.3	97.70
5. CT	6	1.1	1.1	87.60	45. VT	1	.1	.1	87.60
6. FL	2	.3	.3	87.60	46. VA	1	.1	.1	97.70
7. GA	1	.1	.1	87.60	47. WA	3	.4	.4	87.60
8. IL	4	.6	.6	87.60	49. WI	1	.1	.1	87.60
9. KS	1	.1	.1	87.60	65. Europe	4	.6	.6	87.60
10. ME	1	.1	.1	87.60	Latin				
11. MA	4	.6	.6	87.60	66. America		.1	.1	97.70
12. MI	4	.6	.6	87.60	67. Asia	1	.1	.1	100.00
13. MN	1	.1	.1	87.60					
14. MO	1	.1	.1	87.60	TOTAL	708	100.0	100.0	
15. NB	1	.1	.1	87.60					
16. NH	2	.3	.3	87.60					
17. NJ	12	1.7	1.7	92.50					
18. NM	1	.1	.1	87.60					
19. NY	41	5.8	5.8	96.50					

TABLE NUMBER 1&12h

Secondary
Degrees Completed By Associated Variable
Variable 19

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0.	675	95.3	95.3	95.30
1. None	1	.1	.1	95.50
6. BA	4	.6	.6	96.00
7. BS	3	.4	.4	96.50
8. BS Ed	1	.1	.1	96.60
10. MA	10	1.4	1.4	98.00
14. MS	2	.3	.3	98.30
15. MSED	4	.6	.6	98.90
21. Ed D	1	.1	.1	99.00
22. Ed S	1	.1	.1	99.20
22. MBA	1	.1	.1	99.30
31. M Ed	3	.4	.4	99.70
61. MAED	1	.1	.1	99.90
70. 6th Yr	1	.1	.1	100.00
TOTAL	706	100.0	100.0	

TABLE NUMBER 2a

QUESTION 2: Do out-of-state applicants come largely from contiguous states or are they widely dispersed from other states?

(1) In the primary sample (N=1,500), 6.8% or 102 applicants came from contiguous states: Connecticut, Massachusetts, New Jersey, Pennsylvania, and Vermont.

State	Number	Percent
Connecticut	20	19.6
Massachusetts	16	15.7
New Jersey	42	41.1
Pennsylvania	23	22.5
Vermont	1	.0098

In the secondary sample (N=708), 58.2% or 412 applicants came from contiguous states.

State	Number	Percent
Connecticut	86	20.8
Massachusetts	50	12.1
New Jersey	157	38.1
Pennsylvania	110	26.7
Vermont	9	2.1

(2) Applicants from New York State and the contiguous states account for 1,417 of 1,500 persons in the primary sample.

TABLE NUMBER 2b

Primary

CODE	RESOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
1. AZ	2	.1	.1	.10
5. CA	4	.3	.3	.40
6. CO	4	.3	.3	.70
7. CT	20	1.3	1.3	2.00
8. DE	1	.1	.1	2.10
9. FL	5	.3	.3	2.40
10. GA	3	.2	.2	2.60
13. IL	4	.3	.3	2.90
14. IN	1	.1	.1	2.90
15. IA	1	.1	.1	3.00
16. KS	1	.1	.1	3.10
17. KY	2	.1	.1	3.20
18. LA	1	.1	.1	3.30
19. ME	3	.2	.2	3.50
20. MD	6	.4	.4	3.90
21. MA	16	1.1	1.1	4.90
22. MI	6	.4	.4	5.30
25. MO	2	.1	.1	5.50
26. NH	2	.1	.1	5.60
29. NJ	42	2.8	2.8	8.40

32. NY	1315	87.7	87.7	96.10
35. OH	11	.7	.7	96.80
38. PA	23	1.5	1.5	98.30
39. RI	4	.3	.3	98.60
42. TN	4	.3	.3	98.90
44. UT	1	.1	.1	98.90
45. VT	1	.1	.1	99.00
46. VA	5	.3	.3	99.30
47. WA	2	.1	.1	99.50
48. WV	2	.1	.1	99.60
49. WI	4	.3	.3	99.90
51. DC	1	.1	.1	99.90
52. Puerto Rico	1	.1	.1	100.00
TOTAL	1500	100.0	100.0	

TABLE NUMBER 2c

Secondary

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
1. AL	3	.4	.4	.40	27. NB	5	.7	.7	41.50
2. AK	1	.1	.1	.60	28. NV	1	.1	.1	41.90
3. AZ	3	.4	.4	1.00	29. NH	5	.7	.7	42.70
4. AR	1	.1	.1	1.10	30. NJ	157	22.2	22.2	64.80
5. CA	20	2.8	2.8	4.00	31. NM	3	.4	.4	65.30
6. CO	2	.3	.3	4.20	32. NY	9	1.3	1.3	66.50
7. CT	86	12.1	12.1	16.40	33. NC	11	1.6	1.6	68.10
8. DE	3	.4	.4	16.80	34. ND	1	.1	.1	68.20
9. FL	24	3.4	3.4	20.20	35. OH	17	5.2	5.2	73.40
10. GA	2	.4	.4	20.60	37. OR	1	.1	.1	73.60
11. HI	1	.1	.1	20.80	38. PA	110	15.5	15.5	89.10
13. IL	18	2.5	2.5	23.20	39. RI	9	1.3	1.3	90.40
14. IN	9	1.3	1.3	24.60	40. SC	8	1.1	1.1	91.50
15. IA	3	.4	.4	25.00	42. TN	2	.3	.3	91.80
16. KS	2	.3	.3	25.30	43. TX	12	1.7	1.7	93.50
17. KY	3	.4	.4	25.70	44. UT	1	.1	.1	93.60
18. LA	1	.1	.1	25.80	45. VT	9	1.3	1.3	94.90
19. ME	7	1.0	1.0	26.80	46. VA	7	1.0	1.0	95.90
20. MD	16	2.3	2.3	29.10	47. WA	5	.7	.7	96.60
21. MA	50	7.1	7.1	36.20	48. WV	3	.4	.4	97.00
22. MI	22	3.1	3.1	39.30	49. WI	5	.7	.7	97.70
23. MN	2	.3	.3	39.60	50. Puerto Rico	6	.8	.8	98.60
24. MS	1	.1	.1	39.70	51. Other	1	.1	.1	98.70
25. MO	9	1.3	1.3	41.00	52. Ontario	2	.3	.3	99.00
26. MN	1	.1	.1	41.10	53. Europe	3	.4	.4	99.40
					54. Latin America	3	.4	.4	99.90
					55. Aus-				
					56. tralia	1	.1	.1	100.00
					TOTAL	708	100.0	100.0	

Regional Location of Applicants

Contiguous States	Number	Others	Number
Connecticut (E)	106	Alabama (S)	3
Massachusetts (E)	66	Alaska (O)	1
New Jersey (E)	199	Arizona (W)	5
Pennsylvania (E)	133	Arkansas (S)	1
Vermont (E)	10	California (W)	24
	514	Colorado (W)	6
		Delaware (S)	4
		Florida (S)	29
		Georgia (S)	6
		Hawaii (O)	1
		Illinois (N)	22
		Indiana (N)	10
		Iowa (N)	4
		Kansas (N)	3
		Kentucky (S)	5
		Louisiana (S)	2
		Maine (E)	10
		Maryland (S)	22
		Michigan (N)	28
		Minnesota (N)	2
		Mississippi (S)	1
		Missouri (N)	11
		Montana (W)	1
		Nebraska (W)	5
		Nevada (W)	1
		New Hampshire (E)	7
		New Mexico (W)	3
		North Carolina (S)	11
		North Dakota (W)	1
		Ohio (N)	48
		Oregon (W)	1
		Rhode Island (E)	13
		South Carolina (S)	8
		Tennessee (S)	6
		Texas (S)	12
		Utah (W)	2
		Virginia (S)	12
		Washington (W)	7
		West Virginia (S)	5
		Wisconsin (N)	9
		District of Columbia (S)	1
		Puerto Rico (O)	7
		U.S. Possession (O)	1
		Ontario, Canada (O)	2
		Europe (O)	3
		Latin America (O)	3
		Australia (O)	1
			370

New York

1,324



OUTSIDE CONTINENTAL

84

Region	Number	Percent
E = East	1,868	84.60
W = West	56	2.54
S = South	128	5.80
N = North	137	6.20
O = Outside Continental United States	19	.86
TOTAL	2,208	100.00

TABLE NUMBER 3a

QUESTION 3: What percentage of applicants are male-female?

Codes were used to designate females (1) and males (2). The other codes which have appeared (i.e., 0, 3, 7) in the data are errors made by our recorders or keypunchers. For this category of sex, six (6) errors were made, one (1) in the primary sample, and five (5) in the secondary sample. Females comprised 68.5% of the primary sample, 69.2% of the secondary sample. Males represented 31.5% of the primary sample, 30.1% of the secondary.

Primary

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
1. F	1027	68.5	68.5	68.50
2. M	472	31.5	31.5	99.93
7. Error 1		.1	.1	100.00
TOTAL	1500	100.0	100.0	

Secondary

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0.	6	.6	.6	.60
1. F	490	69.2	69.2	69.80
2. M	213	30.1	30.1	99.90
3. Error 1		.1	.1	100.00
TOTAL	708	100.0	100.0	

QUESTION 4: What is the percentage of males-females in certification areas such as School District Administrator (SDA), etc.?

In the primary sample (N=1,500) 68.5% of the applicants were female; 31.5% were male. A separate chart was constructed for each sample by grouping all certificates N-6, N-6 and a content area, health and physical education, art and music, library media specialist, and administration. In the secondary sample 69.2% of the applicants were female, 30.1% were male. Six errors were made by our recorders or keypunchers in instances where sex was coded 0, 3, or 7.

Generally females outnumber males in all certification areas except Health and Physical Education, School Administrator and Supervisor, and School District Administrator.

Eight-hundred seventy-two (872) certificates were issued to males-females in the secondary and primary samples. All certificates issued for N-6 or N-6 and a content area were considered a unit, i.e., elementary school certificates. Together they amount to a little over one-third or 39.4% of the total population.

On the charts which follow the area of certification is designated and certificates are specified as provisional (Prov) or permanent (Perm). Some content areas, as well as words to describe certificates, have been abbreviated. In general the

abbreviations are obvious: P.H. for Physically Handicapped, Hand. for Handicapped, Ret. for Retarded, Bus. for Business, etc.

TABLE NUMBER 4a

Certification Areas of Applicants in Primary and Secondary Samples

	<u>Primary</u>	<u>Secondary</u>	<u>Total</u>		<u>Primary</u>	<u>Secondary</u>	<u>Total</u>
(1) N-6 (Prov)	220	129	349	(42) Russian	1	1	2
(2) N-6 (Perm)	320	103	423	(43) Spanish (Prov)	19	7	26
(3) English (Prov)	43	29	72	(44) Spanish (Perm)	23	7	30
(4) English (Perm)	99	47	146	(45) N-6 and English (Prov)	-	1	1
(5) Soc. Stud. (Prov)	61	35	96	(46) N-6 and English (Perm)	8	2	10
(6) Soc. Stud. (Perm)	75	24	99	(48) N-6 and Gen. Sci. (Perm)	1	-	1
(7) Math. (Prov)	26	18	44	(49) N-6 and Math. (Prov)	1	2	3
(8) Math. (Perm)	43	15	58	(50) N-6 and Math. (Perm)	4	6	10
(9) Gen. Sci. (Prov)	15	4	19	(51) N-6 and Soc. Stud. (Prov)	4	4	8
(10) Gen. Sci. (Perm)	18	7	25	(52) N-6 and Soc. Stud. (Perm)	15	5	20
(11) Biol. (Prov)	7	7	14	(54) N-6 and French (Perm)	-	1	1
(12) Biol. (Perm)	16	11	27	(56) N-6 and Latin (Perm)	1	-	1
(14) Mentally Ret. (Perm)	1	-	1	(59) Chemistry (Prov)	-	3	3
(16) Emotionally Hand. (Perm)	1	-	1	(60) Chemistry (Perm)	6	-	6
(18) Learning Disabled (Perm)	2	-	2	(61) Earth Sci. (Prov)	2	-	2
(20) P.H. - Blind (Perm)	-	1	1	(62) Earth Sci. (Perm)	1	1	2
(22) P.H. - Deaf (Prov)	1	-	1	(63) Physics (Prov)	1	-	1
(27) Spec. Educ. (Prov)	1	4	5	(64) Physics (Perm)	1	2	3
(28) Spec. Educ. (Perm)	1	1	2	(65) Art (Prov)	17	14	31
(29) Speech & Hearing Hand. (Prov)	1	3	4	(66) Art (Perm)	27	6	33
(30) Speech & Hearing Hand. (Perm)	15	7	22	(67) Bus. Educ. (Prov)	4	2	6
(31) French (Prov)	16	9	25	(68) Bus. Educ. (Perm)	4	6	10
(32) French (Perm)	19	6	25	(69) Commerce (Prov)	7	3	10
(33) German (Prov)	3	5	8	(70) Commerce (Perm)	21	2	23
(34) German (Perm)	2	6	8	(71) Health (Prov)	3	3	6
(35) Hebrew (Prov)	1	-	1	(72) Health (Perm)	8	-	8
(36) Hebrew (Perm)	1	-	1	(73) Health and P.E. (Prov)	13	11	24
(37) Italian (Prov)	1	-	1	(74) Health and P.E. (Perm)	18	2	20
(38) Italian (Perm)	1	-	1	(75) Home Econ. (Prov)	6	9	15
(40) Latin (Perm)	1	-	1	(76) Home Econ. (Perm)	12	1	13
				(77) Ind. Arts (Prov)	7	-	7
				(78) Ind. Arts (Perm)	12	1	13

	<u>Primary</u>	<u>Secondary</u>	<u>Total</u>
(79) Library Media Spec. (Prov)	5	7	12
(80) Library Media Spec. (Perm)	18	1	19
(81) Music (Prov)	18	21	39
(82) Music (Perm)	22	15	37
(83) P.E. (Prov)	18	14	32
(84) P.E. (Perm)	27	13	40
(85) Speech (Prov)	5	2	7
(86) Speech (Perm)	5	3	8
(88) School Adm. and Super.	76	28	104
(90) School District Adm.	24	10	34
(91) N-6 and Mentally Ret. (Prov)	9	9	18
(92) N-6 and Mentally Ret. (Perm)	15	12	27
 TOTAL	 1,500	 708	 2,208

Frequency of Certification
Primary

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
N-6 (Prov)	1.	270	14.7	14.7	14.70
N-6 (Perm)	2.	170	21.3	21.3	36.00
English (Prov)	3.	43	2.9	2.9	38.90
English (Perm)	4.	99	6.6	6.6	45.50
Social Studies (Prov)	5.	61	4.1	4.1	49.50
Social Studies (Perm)	6.	75	5.0	5.0	54.50
Mathematics (Prov)	7.	26	1.7	1.7	56.20
Mathematics (Perm)	8.	43	2.9	2.9	59.10
General Science (Prov)	9.	15	1.0	1.0	60.10
General Science (Perm)	10.	18	1.2	1.2	61.30
Biology (Prov)	11.	7	.5	.5	61.80
Biology (Perm)	12.	14	1.1	1.1	62.90
Mentally Retarded (Perm)	14.	1	.1	.1	62.90
Emotionally Hand. (Perm)	16.	1	.1	.1	63.00
Learning Disabled (Perm)	18.	2	.1	.1	63.10
P.H. - Deaf (Prov)	23.	1	.1	.1	63.20
Special Education (Prov)	27.	1	.1	.1	63.30
Special Education (Perm)	28.	1	.1	.1	63.30
Speech & Hearing Handicapped (Prov)	29.	1	.1	.1	63.40
Speech & Hearing Handicapped (Perm)	30.	10	1.0	1.0	64.40
French (Prov)	31.	16	1.1	1.1	65.50
French (Perm)	32.	19	1.3	1.3	66.70
German (Prov)	33.	3	.2	.2	66.90
German (Perm)	34.	2	.1	.1	67.10
Hebrew (Prov)	35.	1	.1	.1	67.10
Hebrew (Perm)	36.	1	.1	.1	67.20
Italian (Prov)	37.	1	.1	.1	67.30
Italian (Perm)	38.	1	.1	.1	67.30
Latin (Perm)	41.	1	.1	.1	67.40
Russian (Perm)	42.	1	.1	.1	67.50
Spanish (Prov)	43.	19	1.3	1.3	68.70
Spanish (Perm)	44.	23	1.5	1.5	70.30
N-6 and English (Perm)	46.	8	.5	.5	70.80
N-6 and General Science (Perm)	48.	1	.1	.1	70.90

N-6 and Mathematics (Prov)	49.	1	.1	.1	70.90
N-6 and Mathematics (Perm)	50.	4	.3	.3	71.20
N-6 and Social Studies (Prov)	51.	4	.3	.3	71.50
N-6 and Social Studies (Perm)	52.	15	1.0	1.0	72.50
N-6 and Latin (Perm)	56.	1	.1	.1	72.50
Chemistry (Perm)	60.	6	.4	.4	72.90
Earth Science (Prov)	61.	2	.1	.1	73.10
Earth Science (Perm)	62.	1	.1	.1	73.10
Physics (Prov)	63.	1	.1	.1	73.20
Physics (Perm)	64.	1	.1	.1	73.30
Art (Priv)	65.	17	1.1	1.1	74.40
Art (Perm)	66.	27	1.8	1.8	76.20
Business Education (Prov)	67.	4	.3	.3	76.50
Business Education (Perm)	68.	4	.3	.3	76.70
Commerce (Prov)	69.	7	.5	.5	77.20
Commerce (Perm)	70.	21	1.4	1.4	78.60
Health (Prov)	71.	3	.2	.2	79.80
Health (Perm)	72.	5	.5	.5	79.30
Health and Physical Education (Prov)	73.	13	.9	.9	80.20
Health and Physical Education (Perm)	74.	16	1.2	1.2	81.40
Home Economics (Prov)	75.	6	.4	.4	81.80
Home Economics (Perm)	76.	12	.8	.8	82.60
Industrial Arts (Prov)	77.	7	.5	.5	83.10
Industrial Arts (Perm)	78.	12	.8	.8	83.90
Library Media Specialist (Prov)	79.	5	.3	.3	84.20
Library Media Specialist (Perm)	80.	18	1.2	1.2	85.40
Music (Prov)	81.	16	1.2	1.2	86.60
Music (Perm)	82.	22	1.5	1.5	88.10
Physical Education (Prov)	83.	18	1.2	1.2	89.30
Physical Education (Perm)	84.	27	1.8	1.8	91.10
Speech (Prov)	85.	5	.3	.3	91.40
Speech (Perm)	86.	5	.3	.3	91.70
School Administrator and Supervisor	87.	76	5.1	5.1	96.80
School District Administrator	90.	24	1.6	1.6	98.40
N-6 and Mentally Retarded (Prov)	91.	9	.6	.6	99.00
N-6 and Mentally Retarded (Perm)	92.	15	1.0	1.0	100.00
TOTAL		1500	100.0	100.0	

Frequency of Certification
Secondary

(C111)

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
N-6 (Prov)	1.	129	16.2	16.2	16.20
N-6 (Perm)	2.	103	14.5	14.5	32.80
English (Prov)	3.	29	4.1	4.1	36.90
English (Perm)	4.	47	6.6	6.6	43.50
Social Studies (Prov)	5.	25	4.9	4.9	42.40
Social Studies (Perm)	6.	24	3.4	3.4	51.80
Mathematics (Prov)	7.	18	2.5	2.5	54.40
Mathematics (Perm)	8.	15	2.1	2.1	56.50
General Science (Prov)	9.	4	.6	.6	57.10
General Science (Perm)	10.	7	1.0	1.0	58.10
Biology (Prov)	11.	7	1.0	1.0	59.00
Biology (Perm)	12.	11	1.6	1.6	60.60
P.H. - Blind (Perm)	13.	1	.1	.1	60.70
Special Education (Prov)	14.	4	.6	.6	61.30
Special Education (Perm)	15.	1	.1	.1	61.40
Speech & Hearing Handicapped (Prov)	16.	3	.4	.4	61.80
Speech & Hearing Handicapped (Perm)	17.	7	1.0	1.0	62.90
French (Prov)	18.	9	1.3	1.3	64.10
French (Perm)	19.	6	.8	.8	65.00
German (Prov)	20.	5	.7	.7	65.70
German (Perm)	21.	6	.8	.8	66.50
Russian (Perm)	22.	1	.1	.1	66.70
Spanish (Prov)	23.	7	1.0	1.0	67.70
Spanish (Perm)	24.	7	1.0	1.0	68.60
N-6 and English (Prov)	25.	1	.1	.1	68.80
N-6 and English (Perm)	26.	2	.3	.3	69.10
N-6 and Mathematics (Prov)	27.	2	.3	.3	69.40
N-6 and Mathematics (Perm)	28.	6	.8	.8	70.20
N-6 and Social Studies (Prov)	29.	4	.6	.6	70.80
N-6 and Social Studies (Perm)	30.	5	.7	.7	71.50
N-6 and French (Perm)	31.	1	.1	.1	71.60
Chemistry (Prov)	32.	3	.4	.4	72.00
Earth Science (Perm)	33.	1	.1	.1	72.20

Physics (Perm)	64.	2	.3	.3	72.50
Art (Prov)	65.	14	2.0	2.0	74.40
Art (Perm)	66.	6	.8	.8	75.30
Business Education (Prov)	67.	2	.3	.3	75.60
Business Education (Perm)	68.	6	.8	.8	76.40
Commerce (Prov)	69.	3	.4	.4	76.60
Commerce (Perm)	70.	2	.3	.3	77.10
Health (Prov)	71.	3	.4	.4	77.50
Health and Physical Education (Prov)	72.	11	1.6	1.6	79.10
Health and Physical Education (Perm)	73.	2	.3	.3	79.40
Home Economics (Prov)	74.	5	1.2	1.2	80.60
Home Economics (Perm)	75.	1	.1	.1	80.60
Industrial Arts (Perm)	76.	1	.1	.1	80.90
Library Media Specialist (Prov)	77.	7	1.0	1.0	81.90
Library Media Specialist (Perm)	78.	1	.1	.1	82.10
Music (Prov)	79.	21	3.0	3.0	85.00
Music (Perm)	80.	15	2.1	2.1	87.10
Physical Education (Prov)	81.	14	2.0	2.0	89.10
Physical Education (Perm)	82.	13	1.6	1.6	91.00
Speech (Prov)	83.	2	.3	.3	91.20
Speech (Perm)	84.	3	.4	.4	91.70
School Administrator & Supervisor	85.	24	4.0	4.0	95.60
School District Administrator	86.	10	1.4	1.4	97.00
N-6 and Mentally Retarded (Prov)	87.	9	1.3	1.3	98.30
N-6 and Mentally Retarded (Perm)	88.	12	1.7	1.7	100.00
TOTAL		756	100.0	100.0	

TABLE NUMBER 4d

Crosstabulation of Certification By Sex
Primary

	SEX				
	COUNT				ROW TOTAL
	ROW PCT				
	COL PCT				
	TOT PCT	1.Female	2.Male	17.Error	
CERTIF					
1. N-6 (Prov)	1	197	23	0	220
	1	89.5	10.5	.0	14.7
	1	19.2	4.9	.0	
	1	13.1	1.5	.0	
2. N-6 (Perm)	1	277	43	0	320
	1	86.6	13.4	.0	21.3
	1	27.0	9.1	.0	
	1	18.5	2.9	.0	
3. English (Prov)	1	33	13	0	43
	1	69.8	31.2	.0	2.9
	1	2.9	2.8	.0	
	1	2.0	.9	.0	
4. English (Perm)	1	71	28	0	99
	1	71.7	28.3	.0	6.6
	1	6.9	5.9	.0	
	1	4.7	1.9	.0	
5. Social Studies (Prov)	1	29	32	0	61
	1	47.5	52.5	.0	4.1
	1	0.0	6.3	.0	
	1	1.9	2.1	.0	
6. Social Studies (Perm)	1	27	48	0	75
	1	36.0	64.0	.0	5.0
	1	2.6	11.2	.0	
	1	1.8	3.2	.0	
7. Mathematics (Prov)	1	9	17	0	26
	1	34.6	65.4	.0	1.7
	1	.9	3.6	.0	
	1	.6	1.1	.0	

	COUNT	SEX		ROW TOTAL
	ROW PCT			
	COL PCT			
	TOT PCT	1.Female	2.Male	17.Error
CERTIF				
8. Mathematics	1	23	23	43
(Perm)	1	45.5	53.5	2.9
	1	1.9	4.9	
	1	1.3	1.5	
9. General Science	1	5	10	15
(Prov)	1	33.3	66.7	1.0
	1	.5	2.1	
	1	.5	.7	
10. General Science	1	5	13	18
(Perm)	1	27.8	72.2	1.2
	1	.5	2.8	
	1	.3	.9	
11. Biology (Prov)	1	4	3	7
	1	57.1	42.9	.5
	1	.4	.6	
	1	.3	.2	
12. Biology (Perm)	1	5	11	16
	1	31.3	68.8	1.1
	1	.5	2.3	
	1	.3	.7	
14. Mentally Re-	1	0	1	1
tarded (Perm)	1	.0	100.0	.1
	1	.0	.2	
	1	.0	.1	
16. Emotionally	1	0	1	1
Handicapped	1	.0	100.0	.1
(Perm)	1	.0	.2	
	1	.0	.1	

CERTIF	COUNT		SEX		ROW TOTAL
	PG. PCT				
	COL PCT				
	TOT PCT				
	1.Female	2.Male	7.Error		
18. Learning Dis- abled (Perm)	1	1	1	0	2
	50.0	50.0	.0	.0	.1
	.1	.2	.1	.0	
	.1	.1	.0	.0	
23. P.H. - Deaf (Prov)	1	1	0	0	1
	100.0	.0	.0	.0	.1
	.1	.0	.0	.0	
	.1	.0	.0	.0	
27. Special Educa- tion (Prov)	1	1	0	0	1
	100.0	.0	.0	.0	.1
	.1	.0	.0	.0	
	.1	.0	.0	.0	
28. Special Educa- tion (Prov)	1	1	0	0	1
	100.0	.0	.0	.0	.1
	.1	.0	.0	.0	
	.1	.0	.0	.0	
29. Speech & Hear- ing Handi- capped (Prov)	1	1	0	0	1
	100.0	.0	.0	.0	.1
	.1	.0	.0	.0	
	.1	.0	.0	.0	
30. Speech & Hear- ing Handi- capped (Perm)	1	13	2	0	15
	86.7	13.3	.0	.0	1.0
	1.3	.4	.0	.0	
	.9	.0	.0	.0	
31. French (Prov)	1	12	4	0	16
	75.0	25.0	.0	.0	1.1
	1.2	.8	.0	.0	
	.8	.3	.0	.0	

CERTIF	COUNT		SEX		ROW TOTAL
	PG. PCT				
	COL PCT				
	TOT PCT				
	1.Female	2.Male	7.Error		
32. French (Perm)	1	17	2	0	19
	89.5	10.5	.0	.0	1.3
	1.7	.4	.0	.0	
	1.1	.1	.0	.0	
33. German (Prov)	1	2	1	0	3
	66.7	33.3	.0	.0	.2
	.2	.2	.0	.0	
	.1	.1	.0	.0	
34. German (Perm)	1	2	0	0	2
	100.0	.0	.0	.0	.1
	.2	.0	.0	.0	
	.1	.0	.0	.0	
35. Hebrew (Prov)	1	1	0	0	1
	100.0	.0	.0	.0	.1
	.1	.0	.0	.0	
	.1	.0	.0	.0	
36. Hebrew (Perm)	1	0	1	0	1
	.0	100.0	.0	.0	.1
	.0	.2	.0	.0	
	.0	.1	.0	.0	
37. Italian (Prov)	1	1	0	0	1
	100.0	.0	.0	.0	.1
	.1	.0	.0	.0	
	.1	.0	.0	.0	
38. Italian (Perm)	1	0	1	0	1
	.0	100.0	.0	.0	.1
	.0	.2	.0	.0	
	.0	.1	.0	.0	

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CERTIF	SEX		ROW		TOTAL
	COUNT		ROW	PCT	
	COL		COL	PCT	
	TOT		TOT	PCT	
	1.Female	2.Male	1	2	
40. Latin (Perm)	1	3	1	100.0	.1
	1	.3	1	.2	
	1	.3	1	.1	
42. Russian (Perm)	1	1	1	100.0	.1
	1	.1	1	.1	
	1	.1	1	.1	
43. Spanish (Prov)	1	15	1	75.9	1.3
	1	1.5	1	1.5	
	1	1.7	1	.3	
44. Spanish (Perm)	1	15	1	100.0	.23
	1	1.5	1	1.7	
	1	1.5	1	.5	
46. N-6 and English (Perm)	1	7	1	87.5	.5
	1	.7	1	.2	
	1	.5	1	.1	
48. N-6 and General Science (Perm)	1	1	1	100.0	.1
	1	.1	1	.1	
	1	.1	1	.1	
49. N-6 and Mathematics (Prov)	1	1	1	100.0	.1
	1	.1	1	.1	
	1	.1	1	.1	

CERTIF	SEX		ROW		TOTAL
	COUNT		ROW	PCT	
	COL		COL	PCT	
	TOT		TOT	PCT	
	1.Female	2.Male	1	2	
50. N-6 and Mathematics (Perm)	1	3	1	75.0	.3
	1	.3	1	.2	
	1	.2	1	.1	
51. N-6 and Social Studies (Prov)	1	3	1	75.0	.1
	1	.3	1	.2	
	1	.2	1	.1	
52. N-6 and Social Studies (Perm)	1	9	1	60.0	1.3
	1	.9	1	1.3	
	1	.6	1	.4	
56. N-6 and Latin (Perm)	1	1	1	100.0	.1
	1	.1	1	.1	
	1	.1	1	.1	
60. Chemistry (Perm)	1	2	1	33.3	.6
	1	.2	1	.8	
	1	.1	1	.3	
61. Earth Science (Perm)	1	3	1	100.0	.1
	1	.3	1	.4	
	1	.3	1	.1	
62. Earth Science (Perm)	1	3	1	100.0	.1
	1	.3	1	.2	
	1	.3	1	.1	

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CERTIF	SEX				ROW TOTAL
	COUNT				
	PO. PCT				
	COL PCT				
	TOT PCT	1.Female	2.Male	3.Error	
63. Physics (Prov)	1	1	0	0	1
	100.0	1	0	0	1
	1	1	0	0	1
	1	1	0	0	1
64. Physics (Perm)	1	0	1	0	1
	100.0	0	1	0	1
	1	0	1	0	1
	1	0	1	0	1
65. Art (Prov)	1	17	0	0	17
	100.0	17	0	0	17
	1	17	0	0	17
	1	17	0	0	17
66. Art (Perm)	1	23	4	0	27
	85.2	23	4	0	27
	1	23	4	0	27
	1	23	4	0	27
67. Business Education (Prov)	1	2	2	0	4
	50.0	2	2	0	4
	1	2	2	0	4
	1	2	2	0	4
68. Business Education (Perm)	1	2	2	0	4
	50.0	2	2	0	4
	1	2	2	0	4
	1	2	2	0	4
69. Commerce (Prov)	1	5	2	0	7
	71.4	5	2	0	7
	1	5	2	0	7
	1	5	2	0	7

CERTIF	SEX				ROW TOTAL
	COUNT				
	PO. PCT				
	COL PCT				
	TOT PCT	1.Female	2.Male	3.Error	
70. Commerce (Perm)	1	13	8	0	21
	1	61.9	38.1	.0	1.0
	1	1.3	1.7	.0	
	1	.9	.5	.0	
71. Health (Prov)	1	3	0	0	3
	1	100.0	.0	.0	.2
	1	.3	.0	.0	
	1	.2	.0	.0	
72. Health (Perm)	1	5	3	0	8
	1	62.5	37.5	.0	.5
	1	.5	.6	.0	
	1	.3	.2	.0	
73. Health and Physical Education (Prov)	1	6	7	0	13
	1	46.2	53.8	.0	.9
	1	.6	1.5	.0	
	1	.4	.5	.0	
74. Health and Physical Education (Perm)	1	6	12	0	18
	1	33.3	66.7	.0	1.2
	1	.6	2.5	.0	
	1	.4	.8	.0	
75. Home Economics (Prov)	1	6	0	0	6
	1	100.0	.0	.0	.4
	1	.6	.0	.0	
	1	.4	.0	.0	
76. Home Economics (Perm)	1	12	0	0	12
	1	100.0	.0	.0	.8
	1	1.2	.0	.0	
	1	.8	.0	.0	

	SEX					ROA TOTAL
	COUNT	1	2	3	4	
	ROW PCT	1	2	3	4	
	COL PCT	1	2	3	4	
	TOT PCT	1	2	3	4	
CERTIF		1.Female	2.Male	3.Error	4	
77. Industrial Arts (Prov)	1	0	7	0	7	
	1	.0	100.0	.0	.5	
	1	.0	1.0	.0		
	1	.0	.0	.0		
78. Industrial Arts (Perm)	1	1	11	0	12	
	1	8.3	91.7	.0	.8	
	1	.1	2.3	.0		
	1	.1	.7	.0		
79. Library Media Specialist (Prov)	1	3	1	1	5	
	1	60.0	20.0	20.0	.3	
	1	.3	.2	100.0		
	1	.2	.1	.1		
80. Library Media Specialist (Perm)	1	17	1	0	18	
	1	94.4	5.6	.0	1.2	
	1	1.7	.2	.0		
	1	1.1	.1	.0		
81. Music (Prov)	1	13	5	0	18	
	1	72.2	27.8	.0	1.3	
	1	1.3	1.1	.0		
	1	.0	.5	.0		
82. Music (Perm)	1	13	9	0	22	
	1	59.1	40.9	.0	1.5	
	1	1.3	1.0	.0		
	1	.0	.6	.0		
83. Physical Educa- tion (Prov)	1	8	10	0	18	
	1	44.4	55.6	.0	1.2	
	1	.8	2.1	.0		
	1	.5	.7	.0		

	COUNT	SEX				ROW TOTAL
	ROW PCT					
	COL PCT					
	TOT PCT	1.Female	2.Male	3.Error		
CERTIF						
84. Physical Education (Perm)	1	17	10	0		27
	1	63.0	37.0	.0		1.6
	1	1.7	2.1	.0		
	1	1.1	.7	.0		
85. Speech (Prov)	1	2	3	0		5
	1	40.0	60.0	.0		.3
	1	.2	.6	.0		
	1	.1	.2	.0		
86. Speech (Perm)	1	4	1	0		5
	1	80.0	20.0	.0		.3
	1	.4	.2	.0		
	1	.3	.1	.0		
88. School Administrator and Supervisor	1	34	42	0		76
	1	44.7	55.3	.0		5.1
	1	3.3	4.9	.0		
	1	2.3	2.8	.0		
90. School District Administrator	1	4	20	0		24
	1	16.7	83.3	.0		1.6
	1	.4	4.2	.0		
	1	.3	1.5	.0		
91. M-6 and Mentally Retarded (Prov)	1	9	0	0		9
	1	100.0	.0	.0		.6
	1	.1	.0	.0		
	1	.6	.0	.0		
92. M-6 and Mentally Retarded (Perm)	1	11	4	0		15
	1	73.3	26.7	.0		1.0
	1	1.1	.8	.0		
	1	.7	.3	.0		

TABLE NUMBER 4c

Crosstabulation of Certification By Sex
Secondary

	SEX				ROW TOTAL
	COUNT				
	ROW PCT				
	COL PCT				
	TOT PCT	10.Error	11.Female	12.Male	17.Error
RTIF	1	1	1	1	1
N-6 (Prov)	1	0	122	7	0
	1	.0	94.6	5.4	.0
	1	.0	24.9	3.3	.0
	1	.0	17.2	1.4	.0
N-6 (Perm)	1	1	86	15	1
	1	1.0	83.5	14.6	1.7
	1	25.0	17.6	7.0	100.0
	1	.1	12.1	2.1	.1
English (Prov)	1	1	33	5	0
	1	3.4	79.3	17.2	.0
	1	25.0	4.7	2.3	.0
	1	.1	3.2	.7	.3
English (Perm)	1	0	34	13	0
	1	.0	72.3	27.7	.0
	1	.0	6.9	6.1	.0
	1	.0	4.8	1.6	.0
Social Studies (Prov)	1	0	18	17	0
	1	.0	51.4	48.6	.0
	1	.0	3.7	8.7	.0
	1	.0	2.5	2.4	.0
Social Studies (Perm)	1	0	8	16	0
	1	.0	33.3	66.7	.0
	1	.0	1.6	7.5	.0
	1	.0	1.1	2.3	.0
Mathematics (Prov)	1	0	13	5	0
	1	.0	72.2	27.8	.0
	1	.0	2.7	2.3	.0
	1	.0	1.6	.7	.0

	COUNT	SEX				ROW TOTAL
	ROW PCT					
	COL PCT					
	TOT PCT	0.Error	1.Female	2.Male	7.Error	
CERTIF						
8. Mathematics (Perm)	1	0	7	8	0	15
	1	.0	46.7	53.3	.0	2.1
	1	.0	1.4	3.6	.0	
	1	.0	1.0	1.1	.0	
9. General Science (Prov)	1	0	2	2	0	4
	1	.0	50.0	50.0	.0	.6
	1	.0	.4	.9	.0	
	1	.0	.3	.3	.0	
10. General Science (Perm)	1	0	3	4	0	7
	1	.0	42.9	57.1	.0	1.0
	1	.0	.6	1.9	.0	
	1	.0	.4	.6	.0	
11. Biology (Prov)	1	0	5	2	0	7
	1	.0	71.4	28.6	.0	1.0
	1	.0	1.0	.9	.0	
	1	.0	.7	.2	.0	
12. Biology (Perm)	1	0	3	8	0	11
	1	.0	27.3	72.7	.0	1.6
	1	.0	.6	3.6	.0	
	1	.0	.4	1.1	.0	
20. P.H. - Blind (Perm)	1	0	0	1	0	1
	1	.0	.0	100.0	.0	.1
	1	.0	.0	.5	.0	
	1	.0	.0	.1	.0	
27. Special Education (Prov)	1	0	4	0	0	4
	1	.0	100.0	.0	.0	.6
	1	.0	.8	.2	.0	
	1	.0	.6	.2	.0	

	COUNT	SEX						ROW TOTAL
	ROW PCT							
	COL PCT							
	TOT PCT	0.Error	1.Female	2.Male	7.Error			
CERTIF								
1. Special Education (Perm)		0	1	0	0			1
		.0	100.0	.0	.0			.1
		.0	.2	.0	.0			
		.0	.1	.0	.0			
2. Speech and Hearing Handi- capped (Prov)		0	3	0	0			3
		.0	100.0	.0	.0			.4
		.0	.6	.0	.0			
		.0	.4	.0	.0			
3. Speech and Hearing Handi- capped (Perm)		0	6	1	0			7
		.0	85.7	14.3	.0			1.0
		.0	1.2	.5	.0			
		.0	.8	.1	.0			
4. French (Prov)		0	7	2	0			9
		.0	77.8	22.2	.0			1.3
		.0	1.4	.9	.0			
		.0	1.0	.3	.0			
5. French (Perm)		0	4	2	0			6
		.0	66.7	33.3	.0			.8
		.0	.6	.9	.0			
		.0	.6	.3	.0			
6. German (Prov)		0	4	1	0			5
		.0	80.0	20.0	.0			.7
		.0	.8	.5	.0			
		.0	.6	.1	.0			
7. German (Perm)		0	4	2	0			6
		.0	66.7	33.3	.0			.8
		.0	.8	.9	.0			
		.0	.6	.3	.0			

CERTIF	SEX							ROW TOTAL	
	COUNT								
	ROW PCT								
	COL PCT								
	TOT PCT	10.Error	11.Female	12.Male	17.Error				
42. Russian (Perm)	1	.0	1	.0	.0	1		1	
	1	.0	100.0	.0	.0	1		.1	
	1	.0	.2	.0	.0	1			
	1	.0	.1	.0	.0	1			
43. Spanish (Prov)	1	.0	4	3	.0	1		7	
	1	.0	57.1	42.9	.0	1		1.0	
	1	.0	.8	1.4	.0	1			
	1	.0	.6	.4	.0	1			
44. Spanish (Perm)	1	.0	6	1	.0	1		7	
	1	.0	85.7	14.3	.0	1		1.0	
	1	.0	1.2	.5	.0	1			
	1	.0	.8	.3	.0	1			
45. N-6 and English (Prov)	1	.0	1	.0	.0	1		1	
	1	.0	100.0	.0	.0	1		.1	
	1	.0	.2	.0	.0	1			
	1	.0	.1	.0	.0	1			
46. N-6 and English (Perm)	1	.0	2	.0	.0	1		2	
	1	.0	100.0	.0	.0	1		.3	
	1	.0	.4	.0	.0	1			
	1	.0	.3	.0	.0	1			
49. N-6 and Mathematics (Prov)	1	.0	2	.0	.0	1		2	
	1	.0	100.0	.0	.0	1		.3	
	1	.0	.4	.0	.0	1			
	1	.0	.3	.0	.0	1			
50. N-6 and Mathematics (Perm)	1	.0	6	.0	.0	1		6	
	1	.0	100.0	.0	.0	1		.8	
	1	.0	1.2	.0	.0	1			
	1	.0	.8	.0	.0	1			

	SEX						ROW TOTAL
	COUNT						
	ROW PCT						
	COL PCT						
	TOT PCT						
RTIF	0.Error	1.Female	2.Male	7.Error			
N-6 and Social Studies (Prov)	0	4	0	0			4
	.0	1.0	.0	.0			.6
	.0	.8	.0	.0			
	.0	.6	.0	.0			
N-6 and Social Studies (Perm)	0	2	3	0			5
	.0	40.0	60.0	.0			.7
	.0	.4	1.4	.0			
	.0	.3	.4	.0			
N-6 and French (Perm)	0	1	0	0			1
	.0	100.0	.0	.0			.1
	.0	.2	.0	.0			
	.0	.1	.1	.0			
3. Chemistry (Perm)	0	0	3	0			3
	.0	.0	100.0	.0			.4
	.0	.0	1.4	.0			
	.0	.0	.4	.0			
2. Earth Science (Perm)	0	0	1	0			1
	.0	.0	100.0	.0			.1
	.0	.0	.5	.0			
	.0	.0	.1	.0			
4. Physics (Perm)	0	0	2	0			2
	.0	.0	100.0	.0			.3
	.0	.0	.9	.0			
	.0	.0	.3	.0			
5. Art (Prov)	0	12	2	0			14
	.0	85.7	14.3	.0			2.0
	.0	2.4	.9	.0			
	.0	1.7	.3	.0			

	SEX						ROW	
	COUNT							TOTAL
	ROW PCT							
	COL PCT							
	TOT PCT							
CERTIF	0.Error	1.Female	2.Male	7.Error	1			
66. Art (Perm)	0	5	1	0	1		6	
	.0	83.3	16.7	.0	1		.8	
	.0	1.0	.5	.0	1			
	.0	.7	.1	.0	1			
67. Business Educa- tion (Prov)	0	2	0	0	1		2	
	.0	100.0	.0	.0	1		.3	
	.0	.4	.0	.0	1			
	.0	.3	.0	.0	1			
68. Business Educa- tion (Perm)	0	3	3	0	1		6	
	.0	50.0	50.0	.0	1		.8	
	.0	.6	1.4	.0	1			
	.0	.4	.4	.0	1			
69. Commerce (Prov)	0	2	1	0	1		3	
	.0	66.7	33.3	.0	1		.4	
	.0	.4	.5	.0	1			
	.0	.3	.1	.0	1			
70. Commerce (Perm)	0	1	1	0	1		2	
	.0	50.0	50.0	.0	1		.3	
	.0	.2	.5	.0	1			
	.0	.1	.1	.0	1			
71. Health (Prov)	0	1	2	0	1		3	
	.0	33.3	66.7	.0	1		.4	
	.0	.2	.9	.0	1			
	.0	.1	.3	.0	1			
73. Health and Physical Education (Prov)	0	5	6	0	1		11	
	.0	45.5	54.5	.0	1		1.6	
	.0	1.0	2.8	.0	1			
	.0	.7	.8	.0	1			

	SEX				ROW TOTAL
	COUNT	10.Error	11.Female	12.Male	17.Error
RTIF	1	0	2	0	0
4. Health and Physical Education (Perm)	1	0	100.0	0	0
5. Home Economics (Prov)	1	0	88.9	11.1	0
16. Home Economics (Perm)	1	0	100.0	0	0
78. Industrial Arts (Perm)	1	0	0	1	0
79. Library Media Specialist (Prov)	1	0	100.0	0	0
80. Library Media Specialist (Perm)	1	0	100.0	0	0
81. Music (Prov)	1	0	47.6	52.4	0

	SEX				ROW TOTAL
	COUNT	10.Error	11.Female	12.Male	17.Error
CERTIF	1	0	9	6	0
82. Music (Perm)	1	0	60.7	40.3	0
83. Physical Education (Prov)	1	0	28.6	71.4	0
84. Physical Education (Perm)	1	0	46.2	53.8	0
85. Speech (Prov)	1	0	13.0	87.0	0
86. Speech (Perm)	1	0	66.7	33.3	0
88. School Administrator and Supervisor	1	0	17.9	82.1	0
90. School District Administrator	1	0	100.0	0	0
91. M-6 and Mentally Retarded (Prov)	1	0	77.8	22.2	0
92. M-6 and Mentally Retarded (Perm)	1	0	75.0	25.0	0

TABLE NUMBER 4f

Crosstabulation of Certification By Sex
Primary (N=1,500)

Category/Type of Certification

- (1) N-6 (Prov)
- (2) N-6 (Perm)
- (45) N-6 and English (Prov)
- (46) N-6 and English (Perm)
- (47) N-6 and General Science (Prov)
- (48) N-6 and General Science (Perm)
- (49) N-6 and Mathematics (Prov)
- (50) N-6 and Mathematics (Perm)
- (51) N-6 and Social Studies (Prov)
- (52) N-6 and Social Studies (Perm)
- (53) N-6 and French (Prov)
- (54) N-6 and French (Perm)
- (55) N-6 and Latin (Prov)
- (56) N-6 and Latin (Perm)
- (57) N-6 and Spanish (Prov)
- (58) N-6 and Spanish (Perm)
- (65) Art (Prov)
- (66) Art (Perm)
- (71) Health (Prov)
- (72) Health (Perm)
- (73) Health and Physical Education (Prov)
- (74) Health and Physical Education (Perm)
- (79) Library Media Specialist (Prov)
- (80) Library Media Specialist (Perm)
- (81) Music (Prov)
- (82) Music (Perm)
- (83) Physical Education (Prov)
- (84) Physical Education (Perm)
- (88) School Administrator and Supervisor
- (90) School District Administrator
- (91) N-6 and Mentally Retarded (Prov)
- (92) N-6 and Mentally Retarded (Perm)

Sex		
Female	Male	Total
197	23	220
277	43	320
-	-	-
7	1	8
-	-	-
1	-	1
1	-	1
3	1	4
3	1	4
9	6	15
-	-	-
-	-	-
-	-	-
1	-	1
-	-	-
-	-	-
17	-	17
23	4	27
3	-	3
5	3	8
6	7	13
6	12	18
3	1	4
17	1	18
13	5	18
13	9	22
8	10	18
17	10	27
34	42	76
4	20	24
9	-	9
11	4	15
688	203	891
77.2%	22.7%	TOTAL

*1 Error (Sex code 7)

TABLE NUMBER 4g

Crosstabulation of Certification By Sex
Secondary (N=708)

<u>Category/Type of Certification</u>	<u>Sex</u>		<u>Total</u>
	<u>Female</u>	<u>Male</u>	
(1) N-6 (Prov)	122	7	129
(2) N-6 (Perm)	86	15	101
(45) N-6 and English (Prov)	1	-	1
(46) N-6 and English (Perm)	2	-	2
(47) N-6 and General Science (Prov)	-	-	-
(48) N-6 and General Science (Perm)	-	-	-
(49) N-6 and Mathematics (Prov)	2	-	2
(50) N-6 and Mathematics (Perm)	6	-	6
(51) N-6 and Social Studies (Prov)	4	-	4
(52) N-6 and Social Studies (Perm)	2	3	5
(53) N-6 and French (Prov)	-	-	-
(54) N-6 and French (Perm)	-	-	1
(55) N-6 and Latin (Prov)	-	-	-
(56) N-6 and Latin (Perm)	-	-	-
(57) N-6 and Spanish (Prov)	-	-	-
(58) N-6 and Spanish (Perm)	-	-	-
(65) Art (Prov)	12	2	14
(66) Art (Perm)	5	1	6
(71) Health (Prov)	1	2	3
(72) Health (Perm)	-	-	-
(73) Health and Physical Education (Prov)	5	6	11
(74) Health and Physical Education (Perm)	2	-	2
(79) Library Media Specialist (Prov)	7	-	7
(80) Library Media Specialist (Perm)	1	-	1
(81) Music (Prov)	10	11	21
(82) Music (Perm)	9	6	15
(83) Physical Education (Prov)	4	10	14
(84) Physical Education (Perm)	6	7	13
(88) School Administrator and Supervisor	5	22	27
(90) School District Administrator	-	10	10
(91) N-6 and Mentally Retarded (Prov)	7	1	8
(92) N-6 and Mentally Retarded (Perm)	9	3	12
	309	106	415
	74.4%	25.5%	TOTAL

*1 Error (Sex code 0)

QUESTION 5: What is the percentage of males-females by age range, area, and level of certification? What is the most representative age in each group?

It will be evident from the tables which follow that we were able to get substantial data for the question. However, we were not fortunate enough to get data for a crosstabulation between age, sex, and level of certification at this time.

The codes are clearly marked on the chart as follows:

<u>Code</u>	<u>Description</u>
1	Female
2	Male
0,3,4,7	Errors in coding for sex
91,74	Errors for year of birth

Under Code the first number denotes the year of birth and the codes for sex follow. At the right of these numbers a number specifies the individuals batched for the year.

The earliest year recorded for an applicant was 1900. A decision was made to use 1938 as the base year to determine how many applicants were less than forty years old.

In the primary sample 1,226 applicants were born in 1938 or later. The number of applicants (1,226) represents 81.7% of the primary sample (N=1,500); of these 68.5% or 840 were female. In the secondary sample 617 applicants were less than forty years old but at least twenty-two. They represent 87.1% of the secondary sample (N=708); of these 61.8% or 438 were female.

TABLE NUMBER
Birth By Sex: Primary Sample

VARIABLE	CODE	N	
FOR ENTIRE POPULATION		(1500)	
BIRTH	1900.	(	1)
SEX	1.	(	1)
BIRTH	0.	(	2)
SEX	1.	(	1)
SEX	2.	(	1)
BIRTH	11.	(	1)
SEX	1.	(	1)
BIRTH	12.	(	1)
SEX	1.	(	1)
BIRTH	14.	(	2)
SEX	1.	(	2)
BIRTH	15.	(	3)
SEX	1.	(	2)
SEX	2.	(	1)
BIRTH	17.	(	3)
SEX	1.	(	3)
BIRTH	18.	(	1)
SEX	2.	(	1)
BIRTH	19.	(	6)
SEX	1.	(	5)
SEX	2.	(	1)
BIRTH	1920.	(	9)
SEX	1.	(	6)
SEX	2.	(	3)
BIRTH	21.	(	3)
SEX	1.	(	3)

VARIABLE	CODE	N	
BIRTH	22.	(	6)
SEX	1.	(	4)
SEX	2.	(	2)
BIRTH	23.	(	9)
SEX	1.	(	8)
SEX	2.	(	1)
BIRTH	24.	(	4)
SEX	1.	(	4)
BIRTH	25.	(	13)
SEX	1.	(	8)
SEX	2.	(	5)
BIRTH	26.	(	10)
SEX	1.	(	9)
SEX	2.	(	1)
BIRTH	27.	(	14)
SEX	1.	(	6)
SEX	2.	(	8)
BIRTH	28.	(	14)
SEX	1.	(	9)
SEX	2.	(	5)
BIRTH	29.	(	16)
SEX	1.	(	12)
SEX	2.	(	4)
BIRTH	1930.	(	20)
SEX	1.	(	15)
SEX	2.	(	5)
BIRTH	31.	(	20)
SEX	1.	(	11)
SEX	2.	(	9)
BIRTH	32.	(	23)
SEX	1.	(	16)
SEX	2.	(	7)
BIRTH	33.	(	17)
SEX	1.	(	11)

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VARIABLE	CODE	N
SEX	2.	61
BIRTH	20.	201
SEX	1.	151
SEX	2.	51
BIRTH	20.	221
SEX	1.	131
SEX	2.	91
BIRTH	21.	191
SEX	1.	111
SEX	2.	81
BIRTH	27.	151
SEX	1.	101
SEX	2.	51
BIRTH	30.	291
SEX	1.	171
SEX	2.	121
BIRTH	30.	261
SEX	1.	171
SEX	2.	91
BIRTH	1940.	321
SEX	1.	241
SEX	2.	81
BIRTH	41.	411
SEX	1.	261
SEX	2.	151
BIRTH	42.	511
SEX	1.	321
SEX	2.	191
BIRTH	43.	421
SEX	1.	251
SEX	2.	171
BIRTH	44.	631
SEX	1.	321

VARIABLE	CODE	N
SEX	2.	311
BIRTH	49.	771
SEX	1.	481
SEX	2.	271
BIRTH	46.	1091
SEX	1.	621
SEX	2.	471
BIRTH	47.	1691
SEX	1.	1121
SEX	2.	571
BIRTH	49.	1461
SEX	1.	1041
SEX	2.	421
BIRTH	49.	1251
SEX	1.	911
SEX	2.	331
SEX	7.	11
BIRTH	1950.	1221
SEX	1.	901
SEX	2.	321
BIRTH	51.	971
SEX	1.	761
SEX	2.	211
BIRTH	52.	811
SEX	1.	661
SEX	2.	151
BIRTH	53.	141
SEX	1.	141
BIRTH	54.	11
SEX	1.	11
BIRTH	91.	11
SEX	1.	11

TOTAL CASES = 1500

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Birth By Sex: Secondary Sample

VARIABLE	CODE	N	VARIABLE	CODE	N
FOR ENTIRE POPULATION		(708)			
BIRTH	1907.	(1)	BIRTH	27.	(3)
SEX	2.	(1)	SEX	0.	(1)
			SEX	1.	(2)
BIRTH	9.	(1)	BIRTH	29.	(7)
SEX	1.	(1)	SEX	0.	(1)
			SEX	1.	(4)
BIRTH	1910.	(1)	SEX	2.	(2)
SEX	2.	(1)	BIRTH	29.	(8)
			SEX	1.	(5)
BIRTH	14.	(1)	SEX	2.	(3)
SEX	1.	(1)	BIRTH	1930.	(3)
BIRTH	1920.	(4)	SEX	1.	(3)
SEX	1.	(1)			
SEX	2.	(3)	BIRTH	31.	(8)
			SEX	1.	(5)
BIRTH	21.	(1)	SEX	2.	(3)
SEX	2.	(1)	BIRTH	32.	(7)
BIRTH	22.	(1)	SEX	1.	(4)
SEX	1.	(1)	SEX	2.	(3)
BIRTH	23.	(3)	BIRTH	33.	(6)
SEX	1.	(7)	SEX	1.	(2)
			SEX	2.	(4)
BIRTH	24.	(3)	BIRTH	34.	(7)
SEX	1.	(1)	SEX	1.	(3)
SEX	2.	(2)	SEX	2.	(4)
BIRTH	25.	(6)	BIRTH	35.	(6)
SEX	1.	(6)	SEX	1.	(3)
			SEX	2.	(3)
BIRTH	26.	(2)	BIRTH	36.	(5)
SEX	2.	(2)	SEX	1.	(3)
			SEX	2.	(2)
			BIRTH	37.	(7)
			SEX	1.	(4)
			SEX	2.	(3)

VARIABLE	CODE	N
BIRTH	18.	(8)
SEX	1.	(6)
SEX	2.	(2)
BIRTH	19.	(8)
SEX	1.	(7)
SEX	2.	(1)
BIRTH	1940.	(9)
SEX	1.	(5)
SEX	2.	(4)
BIRTH	41.	(13)
SEX	1.	(7)
SEX	2.	(6)
BIRTH	42.	(14)
SEX	1.	(9)
SEX	2.	(5)
BIRTH	43.	(15)
SEX	1.	(9)
SEX	2.	(7)
BIRTH	44.	(22)
SEX	1.	(11)
SEX	2.	(11)
BIRTH	45.	(35)
SEX	0.	(1)
SEX	1.	(17)
SEX	2.	(17)
BIRTH	46.	(40)
SEX	1.	(23)
SEX	2.	(16)
SEX	3.	(1)
BIRTH	47.	(67)
SEX	1.	(47)
SEX	2.	(20)
BIRTH	48.	(67)
SEX	1.	(50)

VARIABLE	CODE	N
SEX	2.	(17)
BIRTH	49.	(63)
SEX	1.	(43)
SEX	2.	(20)
BIRTH	1950.	(62)
SEX	0.	(1)
SEX	1.	(48)
SEX	2.	(13)
BIRTH	51.	(109)
SEX	1.	(83)
SEX	2.	(26)
BIRTH	52.	(73)
SEX	1.	(66)
SEX	2.	(7)
BIRTH	53.	(9)
SEX	1.	(5)
SEX	2.	(4)
BIRTH	54.	(1)
SEX	1.	(1)
BIRTH	74.	(1)
SEX	1.	(1)

TOTAL CASES = 708

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QUESTION 6: Which colleges are represented (and how often) at the undergraduate level?

This question cannot be answered at this time. A lengthy discussion was held with one of the administrators on the Computer Center staff and it was agreed that a crosstabulation of data to identify colleges would not be helpful. Data generally presented in this manner can be useful and fairly easy to interpret dependent on the complexity of the table(s) presented, i.e., 2 x 90, 3 x 90, etc.

We used ordinal numbers (1 etc.) to identify colleges within each respective state; the state code was used to function as the control. Too many operations were required to present this data.

The Division of Teacher Education and Certification maintains records to identify colleges where applicants have completed the requirements for certification in New York State. That is, a frequency distribution is maintained on a yearly basis for state institutions only.

- QUESTION 7: (A) How many applicants were granted more than one of the selected certifications?
- (B) How many certifications did applicants report and what was the locus (New York State, New York City, Compact, Other) of each certification?

(A) Sufficient data is available to answer this question; however, the data is not available in the manner we anticipated. An illustration of the chart(s) we wanted to provide is available in the Appendix under the caption Instructions to Programmer(s), Question 9.

We have been able to add some additional information, however. In addition to providing data for the sub-question (A) regarding applicants granted more than one of the selected certifications, we have included data on (1) birth by sex and multiple certification, and (2) multiple certification and sex for the primary, secondary, and combined population.

The bulk of the population in both samples were not granted more than one certificate in New York State. In the primary sample (N=1,500), 87.9% of the applicants had only one additional certificate; in the secondary sample (N=708), 84.2% of the applicants had only one additional certificate. In both samples the number of applicants having more than one certificate ranged from 109 in the secondary sample to 181 in the primary sample. All of this information has to be checked against excess information codes: (2) excess

certifications (over 4), (4) excess institutions and excess certification, (6) excess certification and excess experience, and (7) excess institutions and certification and experience. In effect this means that an eyeball inspection of recording forms would be required for 89 applicants in the primary sample and 69 in the secondary sample.

As we have indicated previously, we have used additional data available on the number of multiple certificates held by applicants in addition to year of birth by sex. The computer machine used the symbol N to designate 0, 1, 2, 3, or 4 certificates. Here is a brief example of how the data appears on Tables Number 7d and 7e.

<u>Code</u>		<u>Description</u>
Birth	1941	Year of Birth
N	1	Number of multiple or additional certificates
Sex	1	Female
Sex	2	Male
N	2	Number of multiple or additional certificates
Sex	1	Female
Sex	2	Male
N	3	Number of multiple or additional certificates
Sex	2	Male

(B) To determine the number and percentage of certificates issued per state it was necessary to scan the computer printout for each frame allotted for certification on the recording frame. Information which did not appear on variables 21, 25,

29, and 33 for both primary and secondary samples would appear as a result of checking each form for an excess information code of 2, 4, 6, or 7 (see A above).

The chart below depicts the number of certificates issued by contiguous states contrasted against New York State and New York City.

Code	Contiguous States	Primary Sample (N=1,500)				Secondary Sample (N=708)			
		Var 21	Var 25	Var 29	Var 33	Var 21	Var 25	Var 29	Var 33
07	Connecticut	22	8	3	26	38	24	13	43
21	Massachusetts	30	15	7	40	38	18	8	40
30	New Jersey	35	37	9	44	71	41	15	78
38	Pennsylvania	69	24	12	52	79	23	9	67
45	Vermont	6	-	1	5	4	1	3	7
	SUB-TOTAL	162	84	32	167	230	107	48	235
32	New York State	631	213	72	908	133	35	19	129
72	New York City	211	123	44	-	0	38	8	-
	TOTAL	1,004	420	148	1,075	391	180	75	364
	% of New York State Certificates	62.8	50.7	48.6	84.4	33.8	19.4	25.3	35.4
	% of New York City Certificates	21.0	29.2	29.7	-	7.6	21.1	10.6	-
	% Contiguous States	16.1	20.0	21.6	5.5	58.7	59.4	64.0	64.5

This data would have to be viewed, in addition, against the code (0) denoting no certificates/percentage of each variable.

TABLE NUMBER 7a

Applicants Granted Multiple Certification

Primary Sample

		ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	CODE				
1.	1 Certificate	1319	87.9	87.9	87.90
2.	2 Certificates	145	9.7	9.7	97.60
3.	3 Certificates	34	2.3	2.3	99.90
4.	4 Certificates	2	.1	.1	100.00
	TOTAL	1500	100.0	100.0	

Secondary Sample

		ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	CODE				
0.	No additional Certificates	3	.4	.4	.40
1.	1 Certificate	596	84.2	84.2	84.60
2.	2 Certificates	27	12.3	12.3	96.90
3.	3 Certificates	20	2.8	2.8	99.70
4.	4 Certificates	2	.3	.3	100.00
	TOTAL	708	100.0	100.0	

TABLE NUMBER 7b

Excess Information on Institutions,
Certification, and Experience

Primary Sample

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0. No excess information		1229	81.9	81.9	81.90
1. Excess institutions (over 4)		124	8.3	8.3	90.20
2. Excess certifications (over 3)		65	4.3	4.3	94.50
3. Excess experiences (over 4)		42	2.8	2.8	97.30
4. Excess institutions <u>and</u> excess certification		14	.9	.9	98.20
5. Excess institutions <u>and</u> excess experience		12	.8	.8	99.10
6. Excess certification <u>and</u> excess experience		7	.5	.5	99.50
7. Excess institutions <u>and</u> certifi- cation <u>and</u> experience		7	.5	.5	100.00
	TOTAL	1500	100.0	100.0	

Secondary Sample

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0. No excess information		592	83.6	83.6	83.60
1. Excess institutions (over 4)		73	4.7	4.7	88.30
2. Excess certifications (over 3)		44	6.2	6.2	94.50
3. Excess experiences (over 4)		11	1.6	1.6	96.00
4. Excess institutions <u>and</u> excess certification		14	2.0	2.0	98.00
5. Excess institutions <u>and</u> excess experience		3	.4	.4	98.40
6. Excess certification <u>and</u> excess experience		7	1.0	1.0	99.40
7. Excess institutions <u>and</u> certifi- cation <u>and</u> experience		4	.6	.6	100.00
	TOTAL	708	100.0	100.0	

TABLE NUMBER 7c
Birth By Sex and Multiple Certification

Primary Sample

VARIABLE	COD	VALUE LABEL	N
FOR ENTIRE POPULATION			(1500)
N	1	1 Certificate	(1319)
SEX	1	Female	(933)
SEX	2	Male	(385)
SEX	7	Error	(1)
N	2	2 Certificates	(145)
SEX	1	Female	(79)
SEX	2	Male	(66)
N	3	3 Certificates	(34)
SEX	1	Female	(14)
SEX	2	Male	(20)
N	4	4 Certificates	(2)
SEX	1	Female	(1)
SEX	2	Male	(1)
TOTAL CASES = 1500			

Secondary Sample

VARIABLE	COD	VALUE LABEL	N
FOR ENTIRE POPULATION			(708)
N	0.	No Additional Certificates	(3)
SEX	0.	Error	(1)
SEX	1.	Female	(2)
N	1.	1 Certificate	(596)
SEX	0.	Error	(2)
SEX	1.	Female	(436)
SEX	2.	Male	(158)
N	2.	2 Certificates	(87)
SEX	0.	Error	(1)
SEX	1.	Female	(45)
SEX	2.	Male	(41)
N	3.	3 Certificates	(20)
SEX	1.	Female	(6)
SEX	2.	Male	(13)
SEX	0.	Error	(1)
N	4.	4 Certificates	(2)
SEX	1.	Female	(1)
SEX	2.	Male	(1)
TOTAL CASES = 708			

TABLE NUMBER 7d

Birth by Sex and Multiple Certification
Primary Sample

VARIABLE	CODE	VALUE LABEL	N
FOR ENTIRE POPULATION			(1500)
BIRTH	1980.		(11
N	1.		(11
SEX	1.		(11
BIRTH	9.		(21
N	1.		(11
SEX	2.		(11
N	2.		(11
SEX	1.		(11
BIRTH	11.		(11
N	1.		(11
SEX	1.		(11
BIRTH	13.		(11
N	1.		(11
SEX	1.		(11
BIRTH	14.		(21
N	1.		(21
SEX	1.		(21
BIRTH	15.		(31
N	1.		(31
SEX	1.		(21
SEX	2.		(11
BIRTH	17.		(31
N	1.		(31
SEX	1.		(31
BIRTH	18.		(11
N	1.		(11
SEX	2.		(11
BIRTH	19.		(61
N	1.		(61
SEX	1.		(51
SEX	2.		(11
BIRTH	1970.		(91
N	1.		(81
SEX	1.		(51
SEX	2.		(31
N	2.		(11
SEX	1.		(11
BIRTH	21.		(31
N	1.		(31
SEX	1.		(31
BIRTH	22.		(61
N	1.		(51
SEX	1.		(41
SEX	2.		(11
N	2.		(11
SEX	2.		(11

BIRTH	23.	(	9)
N	1.	(	9)
SEX	1.	(	8)
SEX	2.	(	1)
BIRTH	24.	(	8)
N	1.	(	4)
SEX	1.	(	4)
BIRTH	25.	(	13)
N	1.	(	12)
SEX	1.	(	8)
SEX	2.	(	4)
N	2.	(	1)
SEX	2.	(	1)
BIRTH	26.	(	10)
N	1.	(	8)
SEX	1.	(	7)
SEX	2.	(	1)
N	2.	(	2)
SEX	3.	(	2)
BIRTH	27.	(	14)
N	1.	(	13)
SEX	1.	(	4)
SEX	2.	(	7)
N	2.	(	3)
SEX	1.	(	2)
SEX	2.	(	1)
BIRTH	28.	(	14)
N	1.	(	14)
SEX	1.	(	9)
SEX	2.	(	5)
BIRTH	29.	(	16)
N	1.	(	16)
SEX	1.	(	12)
SEX	2.	(	4)
BIRTH	1930.	(	20)
N	1.	(	17)
SEX	1.	(	14)
SEX	2.	(	3)
N	2.	(	3)
SEX	1.	(	1)
SEX	2.	(	2)
BIRTH	31.	(	20)
N	1.	(	15)
SEX	1.	(	10)
SEX	2.	(	5)
N	2.	(	4)
SEX	2.	(	4)
N	1.	(	1)
SEX	1.	(	1)
BIRTH	32.	(	23)
N	1.	(	19)
SEX	1.	(	14)
SEX	2.	(	5)
N	2.	(	4)
SEX	1.	(	2)
SEX	2.	(	2)

PIRTH	31.	(	17)
N	1.	(	15)
SEX	1.	(	11)
SEX	2.	(	4)
N	2.	(	2)
SEX	2.	(	2)
PIRTH	34.	(	20)
N	1.	(	16)
SEX	1.	(	11)
SEX	2.	(	5)
N	2.	(	3)
SEX	1.	(	3)
N	3.	(	1)
SEX	1.	(	1)
PIRTH	35.	(	22)
N	1.	(	16)
SEX	1.	(	10)
SEX	2.	(	6)
N	2.	(	5)
SEX	1.	(	3)
SEX	2.	(	2)
N	3.	(	1)
SEX	2.	(	1)
PIRTH	36.	(	19)
N	1.	(	19)
SEX	1.	(	11)
SEX	2.	(	8)
PIRTH	37.	(	15)
N	1.	(	13)
SEX	1.	(	5)
SEX	2.	(	4)
N	2.	(	2)
SEX	1.	(	1)
SEX	2.	(	1)
PIRTH	38.	(	29)
N	1.	(	26)
SEX	1.	(	16)
SEX	2.	(	10)
N	2.	(	2)
SEX	2.	(	2)
N	2.	(	1)
SEX	1.	(	1)
PIRTH	39.	(	26)
N	1.	(	24)
SEX	1.	(	16)
SEX	2.	(	8)
N	2.	(	2)
SEX	1.	(	1)
SEX	2.	(	1)
PIRTH	1940.	(	32)
N	1.	(	24)
SEX	1.	(	19)
SEX	2.	(	5)
N	2.	(	7)
SEX	1.	(	4)
SEX	2.	(	3)
N	2.	(	1)
SEX	1.	(	1)

BIRTH	41.	(	41)
N	1.	(	33)
SEX	1.	(	24)
SEX	2.	(	9)
N	2.	(	5)
SEX	1.	(	2)
SEX	2.	(	3)
N	3.	(	3)
SEX	1.	(	2)
SEX	2.	(	1)
BIRTH	42.	(	51)
N	1.	(	44)
SEX	1.	(	29)
SEX	2.	(	15)
N	2.	(	7)
SEX	1.	(	3)
SEX	2.	(	4)
BIRTH	43.	(	42)
N	1.	(	34)
SEX	1.	(	20)
SEX	2.	(	14)
N	2.	(	6)
SEX	1.	(	5)
SEX	2.	(	1)
N	3.	(	2)
SEX	2.	(	2)
BIRTH	44.	(	63)
N	1.	(	55)
SEX	1.	(	27)
SEX	2.	(	28)
N	2.	(	8)
SEX	1.	(	5)
SEX	2.	(	3)
BIRTH	45.	(	77)
N	1.	(	67)
SEX	1.	(	44)
SEX	2.	(	23)
N	2.	(	6)
SEX	1.	(	3)
SEX	2.	(	3)
N	3.	(	4)
SEX	1.	(	1)
SEX	2.	(	3)
BIRTH	46.	(	109)
N	1.	(	95)
SEX	1.	(	58)
SEX	2.	(	37)
N	2.	(	8)
SEX	1.	(	1)
SEX	2.	(	7)
N	3.	(	6)
SEX	1.	(	3)
SEX	2.	(	3)

BIRTH	47.	(169)
N	1.	(154)
SEX	1.	(106)
SEX	2.	(48)
N	2.	(13)
SEX	1.	(6)
SEX	2.	(7)
N	3.	(2)
SEX	2.	(2)
BIRTH	48.	(146)
N	1.	(128)
SEX	1.	(97)
SEX	2.	(31)
N	2.	(14)
SEX	1.	(6)
SEX	2.	(8)
N	3.	(4)
SEX	1.	(1)
SEX	2.	(3)
BIRTH	49.	(125)
N	1.	(108)
SEX	1.	(81)
SEX	2.	(26)
SEX	7.	(1)
N	2.	(13)
SEX	1.	(9)
SEX	2.	(4)
N	3.	(4)
SEX	1.	(1)
SEX	2.	(3)
BIRTH	1950.	(122)
N	1.	(108)
SEX	1.	(78)
SEX	2.	(30)
N	2.	(13)
SEX	1.	(11)
SEX	2.	(2)
N	3.	(1)
SEX	1.	(1)
BIRTH	51.	(97)
N	1.	(89)
SEX	1.	(71)
SEX	2.	(19)
N	2.	(3)
SEX	1.	(3)
N	3.	(3)
SEX	1.	(1)
SEX	2.	(2)
N	4.	(2)
SEX	1.	(1)
SEX	2.	(1)
BIRTH	52.	(81)
N	1.	(76)
SEX	1.	(63)
SEX	2.	(13)
N	2.	(5)
SEX	1.	(3)
SEX	2.	(2)

BIRTH	53.	(	14)
N	1.	(	13)
SEX	1.	(	13)
N	2.	(	1)
SEX	1.	(	1)
BIRTH	54.	(	1)
N	1.	(	1)
SEX	1.	(	1)
BIRTH	91. Error	(	1)
N	1.	(	1)
SEX	1.	(	1)
TOTAL CASES = 1500			

TABLE NUMBER 7e

Birth by Sex and Multiple Certification
Secondary Sample

VARIABLE	CODE	VALUE LABEL	N
FOR ENTIRE POPULATION			(7081
BIRTH	1907.		(11
N	1.		(11
SEX	2.		(11
BIRTH	9.		(11
N	1.		(11
SEX	1.		(11
BIRTH	1910.		(11
N	1.		(11
SEX	2.		(11
BIRTH	10.		(11
N	1.		(11
SEX	1.		(11
BIRTH	1920.		(41
N	1.		(31
SEX	1.		(11
SEX	2.		(21
N	2.		(11
SEX	2.		(11
BIRTH	21.		(11
N	2.		(11
SEX	2.		(11
BIRTH	22.		(11
N	1.		(11
SEX	1.		(11
BIRTH	23.		(31
N	1.		(31
SEX	1.		(31
BIRTH	24.		(31
N	1.		(21
SEX	1.		(11
SEX	2.		(11
N	2.		(11
SEX	2.		(11
BIRTH	25.		(61
N	0.		(11
SEX	1.		(11
N	1.		(51
SEX	1.		(51
BIRTH	26.		(21
N	1.		(21
SEX	2.		(21
BIRTH	27.		(31
N	1.		(31
SEX	0.		(11
SEX	1.		(21

BIRTH	28.	(	7)
N	1.	(	5)
SEX	1.	(	4)
SEX	2.	(	1)
N	2.	(	1)
SEX	0.	(	1)
N	3.	(	1)
SEX	2.	(	1)
BIRTH	29.	(	8)
N	1.	(	6)
SEX	1.	(	4)
SEX	2.	(	2)
N	2.	(	2)
SEX	1.	(	1)
SEX	2.	(	1)
BIRTH	1930.	(	3)
N	1.	(	3)
SEX	1.	(	3)
BIRTH	31.	(	8)
N	1.	(	6)
SEX	1.	(	5)
SEX	2.	(	1)
N	2.	(	1)
SEX	2.	(	1)
N	3.	(	1)
SEX	2.	(	1)
BIRTH	32.	(	7)
N	1.	(	5)
SEX	1.	(	4)
SEX	2.	(	1)
N	2.	(	2)
SEX	2.	(	2)
BIRTH	33.	(	6)
N	1.	(	4)
SEX	1.	(	2)
SEX	2.	(	2)
N	2.	(	2)
SEX	2.	(	2)
BIRTH	34.	(	7)
N	1.	(	5)
SEX	1.	(	3)
SEX	2.	(	2)
N	2.	(	2)
SEX	2.	(	2)
BIRTH	35.	(	6)
N	1.	(	6)
SEX	1.	(	3)
SEX	2.	(	3)
BIRTH	36.	(	5)
N	1.	(	3)
SEX	1.	(	3)
N	2.	(	1)
SEX	2.	(	1)
N	3.	(	1)
SEX	2.	(	1)

BIRTH	27.	(	7)
N	1.	(	7)
SEX	1.	(	4)
SEX	2.	(	3)
BIRTH	38.	(	8)
N	1.	(	6)
SEX	1.	(	6)
N	2.	(	2)
SEX	2.	(	2)
BIRTH	39.	(	8)
N	1.	(	4)
SEX	1.	(	4)
N	2.	(	3)
SEX	1.	(	2)
SEX	2.	(	1)
N	3.	(	1)
SEX	1.	(	1)
BIRTH	1940.	(	9)
N	1.	(	7)
SEX	1.	(	4)
SEX	2.	(	3)
N	2.	(	1)
SEX	1.	(	1)
N	3.	(	1)
SEX	2.	(	1)
BIRTH	41.	(	13)
N	1.	(	8)
SEX	1.	(	5)
SEX	2.	(	3)
N	2.	(	4)
SEX	1.	(	2)
SEX	2.	(	2)
N	3.	(	1)
SEX	2.	(	1)
BIRTH	42.	(	14)
N	1.	(	11)
SEX	1.	(	7)
SEX	2.	(	4)
N	2.	(	3)
SEX	1.	(	2)
SEX	2.	(	1)
BIRTH	43.	(	16)
N	1.	(	13)
SEX	1.	(	8)
SEX	2.	(	5)
N	2.	(	2)
SEX	2.	(	2)
N	4.	(	1)
SEX	1.	(	1)
BIRTH	44.	(	22)
N	1.	(	15)
SEX	1.	(	7)
SEX	2.	(	8)
N	2.	(	6)
SEX	1.	(	4)
SEX	2.	(	2)
N	4.	(	1)
SEX	2.	(	1)

BIRTH	46.	(	35)
N	1.	(	30)
SEX	0.	(	1)
SEX	1.	(	17)
SEX	2.	(	12)
N	2.	(	3)
SEX	2.	(	3)
N	3.	(	2)
SEX	2.	(	2)
BIRTH	46.	(	40)
N	1.	(	32)
SEX	1.	(	21)
SEX	2.	(	11)
N	2.	(	7)
SEX	1.	(	2)
SEX	2.	(	5)
N	3.	(	1)
SEX	3.	(	1)
BIRTH	47.	(	67)
N	0.	(	1)
SEX	1.	(	1)
N	1.	(	55)
SEX	1.	(	42)
SEX	2.	(	13)
N	2.	(	7)
SEX	1.	(	3)
SEX	2.	(	4)
N	3.	(	4)
SEX	1.	(	1)
SEX	2.	(	3)
BIRTH	48.	(	67)
N	1.	(	58)
SEX	1.	(	45)
SEX	2.	(	13)
N	2.	(	8)
SEX	1.	(	5)
SEX	2.	(	3)
N	1.	(	1)
SEX	2.	(	1)
BIRTH	49.	(	63)
N	1.	(	55)
SEX	1.	(	36)
SEX	2.	(	19)
N	2.	(	6)
SEX	1.	(	6)
N	3.	(	2)
SEX	1.	(	1)
SEX	2.	(	1)

BIRTH	19:0.	0	621
N	0.	0	11
SEX	0.	0	11
N	1.	0	541
SEX	1.	0	421
SEX	2.	0	121
N	2.	0	41
SEX	1.	0	51
SEX	2.	0	11
N	3.	0	11
SEX	1.	0	11
BIRTH	51.	0	1091
N	1.	0	981
SEX	1.	0	751
SEX	2.	0	231
N	2.	0	101
SEX	1.	0	71
SEX	2.	0	31
N	3.	0	11
SEX	1.	0	11
BIRTH	52.	0	731
N	1.	0	671
SEX	1.	0	601
SEX	2.	0	71
N	2.	0	51
SEX	1.	0	51
N	3.	0	11
SEX	1.	0	11
BIRTH	53.	0	91
N	1.	0	81
SEX	1.	0	51
SEX	2.	0	31
N	3.	0	11
SEX	2.	0	11
BIRTH	54.	0	11
N	1.	0	11
SEX	1.	0	11
BIRTH	74.	Error	0
N	1.	0	11
SEX	1.	0	11
TOTAL CASES :		710	

Certification By State and Variable (21)
Primary Sample

yes	13. NC	4	.3	.3	78.70
	14. ND	1	.1	.1	78.60
yes	15. OH	45	3.0	3.0	77.40
yes	16. OK	2	.1	.1	77.30
yes	17. PA	69	4.6	4.6	87.30
yes	18. RI	6	.4	.4	77.70
	19. SC	2	.1	.1	77.60
	20. TN	5	.3	.3	83.20
	21. TX	3	.2	.2	81.10
yes	22. UT	4	.3	.3	83.70
yes	23. VT	6	.4	.4	84.10
yes	24. VA	5	.3	.3	84.10
yes	25. WV	2	.1	.1	84.50
yes	26. WI	9	.6	.6	87.10
	27. WY	2	.1	.1	89.30
	28. DC	3	.2	.2	89.80
	Puerto Rico	4	.3	.3	89.70
	29. Quebec	1	.1	.1	89.80
	30. Asia	1	.1	.1	89.80
yes	31. NYC	211	14.1	14.1	84.90
	32. Error	1	.1	.1	100.00
	TOTAL	1500	100.0	100.0	

TABLE NUMBER 7E

Certification By State and Variable (25)
Primary Sample

COMPACT STATE	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
	C.	959	63.9	63.9	63.90		11. NM	1	.1	.1 77.90
	1. AZ	2	.1	.1	64.10		12. NY	213	14.2	14.2 87.10
yes	2. CA	11	.7	.7	64.80	yes	13. OH	23	1.5	1.5 88.60
	3. CO	3	.2	.2	65.00	yes	14. OK	1	.1	.1 88.70
	4. CT	6	.4	.4	65.40	yes	15. OR	2	.1	.1 88.80
yes	5. DE	1	.1	.1	65.50	yes	16. PA	24	1.6	1.6 90.40
yes	6. FL	5	.3	.3	65.80	yes	17. RI	2	.1	.1 90.50
	7. GA	5	.3	.3	66.30		18. SC	1	.1	.1 90.60
	8. IL	12	.8	.8	67.10		19. TX	1	.1	.1 90.70
yes	9. IN	1	.1	.1	67.20	yes	20. VA	4	.3	.3 91.00
	10. IO	2	.1	.1	67.30	yes	21. WA	1	.1	.1 91.10
yes	11. KY	3	.2	.2	67.50	yes	22. WV	2	.1	.1 91.20
	12. LA	2	.1	.1	67.60	yes	23. MI	2	.2	.2 91.40
yes	13. ME	4	.3	.3	67.90		24. DC	1	.1	.1 91.50
yes	14. MD	4	.3	.3	68.20		Puerto Rico	2	.1	.1 91.60
yes	15. MA	15	1.0	1.0	69.20		Newfound-	1	.1	.1 91.70
	16. MI	13	.9	.9	70.00		land	1	.1	.1 91.80
	17. MO	4	.3	.3	70.30		25. Asia	1	.1	.1 91.90
	18. NV	1	.1	.1	70.40	yes	26. NYC	123	8.2	8.2 100.00
yes	19. NJ	27	2.5	2.5	72.90		TOTAL	1500	100.0	100.0

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TABLE NUMBER 7h
Classification By State and Variable (29)
Primary Sample

COMPACT STATE	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
	C.	1300	86.7	86.7	85.70	yes	35. OH	3	.2	.2 95.20
	1. AL	1	.1	.1	86.70	yes	36. PA	12	.8	.8 96.10
yes	5. CA	5	.3	.3	87.10		42. TN	1	.1	.1 96.20
yes	7. CT	1	.2	.2	87.30		45. VT	1	.1	.1 96.30
yes	9. FL	1	.1	.1	87.30	yes	46. VA	3	.2	.2 96.50
	10. GA	3	.2	.2	87.50	yes	48. WV	2	.1	.1 96.60
	12. IL	1	.1	.1	87.60	yes	49. WI	5	.3	.3 96.90
	16. KS	1	.1	.1	87.70		50. WY	1	.1	.1 97.00
yes	17. KY	3	.2	.2	87.90	yes	51. DC	1	.1	.1 97.10
yes	19. ME	1	.1	.1	87.90		77. NYC	89	2.9	2.9 100.00
yes	20. MD	3	.2	.2	88.10		TOTAL	1300	100.0	100.0
yes	21. MA	7	.5	.5	88.60					
	22. MI	9	.6	.6	89.20					
	23. MN	2	.1	.1	89.30					
	25. MO	1	.2	.2	89.50					
yes	30. NJ	9	.6	.6	90.10					
	31. NM	1	.1	.1	90.20					
yes	32. NY	72	4.8	4.8	95.00					
yes	33. NC	1	.1	.1	95.10					
	34. ND	1	.1	.1	95.10					

TABLE NUMBER 71

Certification By State and Variable (33)
Primary Sample

COMPACT STATE	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
	0.	158	10.5	10.5	10.50		31. NM	2	.1
	1. AL	3	.2	.2	10.70	yes	32. NY	908	60.5
	3. AZ	2	.1	.1	10.90	yes	33. NC	5	.3
yes	5. CA	15	1.0	1.0	11.90		34. ND	1	.1
	6. CO	7	.5	.5	12.30		35. OH	32	2.1
yes	7. CT	26	1.7	1.7	14.10	yes	36. PA	52	3.5
yes	8. DE	3	.2	.2	14.30	yes	38. RI	6	.4
yes	9. FL	21	1.4	1.4	15.70	yes	40. SC	3	.2
	10. GA	8	.5	.5	16.20		42. TN	5	.3
	13. IL	19	1.3	1.3	17.50		43. TX	5	.3
yes	14. IN	10	.7	.7	18.10	yes	44. UT	2	.1
	15. IO	2	.1	.1	18.30	yes	45. VT	5	.3
	16. KS	4	.3	.3	18.50	yes	46. VA	7	.5
yes	17. KY	7	.5	.5	19.00	yes	48. WV	1	.1
	18. LA	4	.3	.3	19.30	yes	49. WI	8	.5
yes	19. ME	3	.2	.2	19.50		50. WY	1	.1
yes	20. ND	15	1.0	1.0	20.50		51. DC	4	.3
yes	21. MA	40	2.7	2.7	23.10		Puerto Rico	4	.3
	22. MI	17	1.1	1.1	24.30		54. Other 2		.1
	23. MN	2	.1	.1	24.40		British Colum.	1	.1
	24. MS	3	.2	.2	24.60		61 Ontario	1	.1
	25. MO	6	.4	.4	25.00		63 Quebec	2	.1
yes	27. NB	1	.1	.1	25.10		Latin America		.4
	28. NV	2	.1	.1	25.20		66 Africa	6	.4
yes	29. NH	2	.1	.1	25.30		68 Asia	7	.5
yes	30. NJ	44	2.9	2.9	26.30		TOTAL	1500	100.0

TABLE NUMBER 71
Certification By State and Variable (21)
Secondary Sample

COMPACT STATE	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)						
	0.	95	13.4	13.4	13.40	yes	32. NY	1'3	18.8	18.8	69.60
	1. AL	1	.1	.1	13.60	yes	33. NC	10	1.4	1.4	71.00
	2. AZ	4	.6	.6	14.10		34. ND	1	.1	.1	71.20
	4. AR	1	.1	.1	14.30	yes	35. OH	45	6.4	6.4	77.60
yes	5. CA	7	1.0	1.0	15.30		37. OR	2	.3	.3	77.80
	6. CO	2	.3	.3	15.50	yes	38. PA	79	11.2	11.2	89.00
yes	7. CT	38	5.4	5.4	20.90	yes	39. RI	5	.7	.7	89.70
yes	8. DE	1	.1	.1	21.00		40. SC	5	.7	.7	90.40
yes	9. FL	10	1.4	1.4	22.50		42. TN	2	.3	.3	90.70
	10. GA	7	1.0	1.0	23.40		43. TX	8	1.1	1.1	91.80
yes	11. HI	1	.1	.1	23.60	yes	44. UT	2	.3	.3	92.10
	13. IL	13	1.8	1.8	25.40	yes	45. VT	4	.6	.6	92.70
yes	14. IN	4	.6	.6	26.00	yes	46. VA	8	1.1	1.1	93.80
	15. IO	3	.4	.4	26.40	yes	47. WA	1	.1	.1	93.90
	16. KS	2	.3	.3	26.70	yes	48. WV	4	.6	.6	94.50
yes	17. KY	7	1.0	1.0	27.70	yes	49. WI	3	.4	.4	94.90
	18. LA	2	.3	.3	28.00		Puerto Rico	5	.7	.7	95.60
yes	19. ME	5	.7	.7	28.70		61. Ontario	1	.1	.1	95.80
yes	20. MD	6	.8	.8	29.50	yes	72. NYC	10	4.2	4.2	100.00
yes	21. MA	38	5.4	5.4	34.90		TOTAL	705	100.0	100.0	
	22. MI	18	2.5	2.5	37.40						
	25. MO	8	1.1	1.1	38.60						
yes	27. MS	9	1.3	1.3	39.90						
yes	28. NH	7	1.0	1.0	40.90						
yes	30. NJ	71	10.0	10.0	50.90						

TABLE NUMBER 7k

Certification By State and Variable (25)
Secondary Sample

COMPACT STATE	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
	7.	412	58.2	58.2	58.20		31. NM	2	.3	.3 80.90
	1. AL	2	.3	.3	59.50	yes	32. NY	35	4.9	4.9 85.90
	3. AZ	1	.1	.1	59.60	yes	33. NC	4	.6	.6 86.40
yes	5. CA	9	1.3	1.3	59.90	yes	35. OH	19	2.7	2.7 89.10
	6. CO	4	.6	.6	60.50		37. OR	1	.1	.1 89.30
yes	7. CT	24	3.4	3.4	63.80	yes	38. PA	23	3.2	3.2 92.50
yes	9. DE	1	.1	.1	64.00	yes	39. RI	4	.6	.6 93.10
yes	9. FL	7	1.0	1.0	65.00		40. SC	2	.3	.3 93.40
	10. GA	3	.4	.4	65.40	yes	42. TN	2	.3	.3 93.70
	13. IL	6	.9	.9	66.20		43. TX	7	1.0	1.0 94.60
yes	14. IN	3	.4	.4	66.70	yes	45. VT	1	.1	.1 94.80
	15. IO	2	.3	.3	66.90	yes	46. VA	2	.3	.3 95.10
	16. KS	1	.1	.1	67.10	yes	47. WA	2	.3	.3 95.30
yes	17. KY	1	.1	.1	67.20	yes	48. WV	2	.3	.3 95.60
	18. LA	2	.3	.3	67.50		51. DC	1	.1	.1 95.80
yes	19. ME	2	.3	.3	67.80		Puerto Rico	2	.3	.3 96.00
yes	20. MD	4	.6	.6	68.40		53. Rico	2	.3	.3 96.30
yes	21. MA	18	2.5	2.5	70.90		New Bruns-	1	.1	.1 96.70
	22. MI	13	1.8	1.8	72.70		57. wick	1	.1	.1 96.70
	23. MN	1	.1	.1	72.90		(1)Ontario	1	.1	.1 96.70
	24. MS	2	.3	.3	73.20		Latin			
	25. MO	2	.3	.3	73.90		66. America	.1	.1	.1 96.90
yes	27. NB	4	.6	.6	74.40	yes	72. NYC	25	3.5	3.5 100.00
yes	29. NH	1	.1	.1	74.90		70.40	70.6	100.0	100.0
yes	30. NJ	41	5.8	5.8	80.60					

TABLE NUMBER 71

Certification By State and Variable (29)
Secondary Sample

COMPACT STATE	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)						
	0.	574	61.1	61.1	81.10	yes	77. NY	19	2.7	2.7	94.10
						yes	83. NC	3	.4	.4	94.50
							84. ND	1	.1	.1	94.60
						yes	85. OH	4	.6	.6	95.20
yes	5. CA	6	.8	.8	91.90	yes	86. PA	9	1.3	1.3	95.50
yes	7. CT	13	1.8	1.8	93.60	yes	89. RI	2	.3	.3	96.80
yes	9. FL	3	.4	.4	84.20		42. TN	1	.1	.1	96.90
	10. GA	3	.4	.4	84.60		43. TX	1	.1	.1	97.00
	13. IL	4	.6	.6	85.20	yes	45. VT	3	.4	.4	97.50
	14. IO	1	.1	.1	85.30	yes	46. VA	2	.3	.3	97.70
	16. KS	1	.1	.1	85.50	yes	47. WA	3	.4	.4	98.20
yes	17. KY	2	.3	.3	85.70	yes	48. WV	1	.1	.1	98.30
	18. LA	1	.1	.1	85.90		Puerto Rico	1	.1	.1	98.40
yes	19. ME	1	.1	.1	86.00		New Bruns-	1	.1	.1	98.60
yes	20. MD	1	.1	.1	86.20		wick	1	.1	.1	98.70
yes	21. MA	6	1.1	1.1	87.30		Newfound-	1	.1	.1	98.80
	22. MI	6	.6	.6	88.10		land	1	.1	.1	98.90
	25. MO	4	.6	.6	88.70	yes	61. Ontario		.1	.1	99.00
	26. MT	1	.1	.1	88.80		72. NYC	8	1.1	1.1	100.00
yes	27. NB	1	.1	.1	89.00		TOTAL	700	100.0	100.0	
yes	28. NH	1	.1	.1	89.10						
yes	30. NJ	15	2.1	2.1	91.20						
	31. NM	1	.1	.1	91.40						

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Certification By State and Variable (33)
Secondary Sample

COMPACT STATE	CODE	ABSOLUTE FREC	RELATIVE FREC (PCT)	ADJUSTED FREC (PCT)	CUM FREC (PCT)		31. NM	1	.1	.1	50.20
						yes	32. NY	129	18.2	18.2	70.50
						yes	33. NC	8	1.1	1.1	71.60
						yes	35. OH	34	4.8	4.8	76.40
							37. OR	1	.1	.1	76.50
						yes	38. PA	67	9.5	9.5	86.00
yes						yes	39. RI	6	.8	.8	86.80
							40. SC	2	1.1	1.1	87.90
yes						yes	41. SD	1	.1	.1	88.10
yes							42. TN	1	.1	.1	88.30
yes							43. TX	7	1.0	1.0	89.20
						yes	44. UT	1	.1	.1	89.40
						yes	45. VT	7	1.0	1.0	90.40
yes						yes	46. VA	9	1.3	1.3	91.60
						yes	47. WA	6	.8	.8	92.50
						yes	48. WV	6	.8	.8	93.30
yes						yes	49. WI	2	.3	.3	93.60
							51. DC	1	.6	.6	94.20
							Puerto Rico	5	.7	.7	94.90
yes							New Brunswick	1	.1	.1	95.00
yes							Newfoundland	2	.3	.3	95.30
yes							61. Ontario	2	.3	.3	95.60
							65. Europe	3	.4	.4	96.00
							Latin America	3	.4	.4	96.40
							Africa	6	.8	.8	97.20
yes							68. Asia	5	.7	.7	97.90
							TOTAL	708	100.0	100.0	

Crosstabulation of Sex by State of the Primary
and Secondary Samples (N=2,268)

QUESTION 8: What percentage of applicants come from the Compact States? What is the percentage by state and sex? *

State	0	1 (Female)	2 (Male)	3	7
(1) Alabama	-	2 (.1)	1 (.0)	-	-
(2) Alaska (C)	-	-	1 (.0)	-	-
(3) Arizona	-	4 (.2)	1 (.0)	-	-
(4) Arkansas	-	1 (.0)	-	-	-
(5) California (C)	-	19 (.9)	5 (.2)	-	-
(6) Colorado	-	5 (.2)	1 (.0)	-	-
(7) Connecticut (C)	-	74 (3.4)	32 (1.4)	-	-
(8) Delaware (C)	-	3 (.1)	1 (.0)	-	-
(9) Florida (C)	1 (.0)	21 (1.0)	7 (.3)	-	-
(10) Georgia	-	3 (.1)	3 (.1)	-	-
(11) Hawaii (C)	-	1 (.0)	-	-	-
(12) Idaho (C)	-	-	-	-	-
(13) Illinois	-	14 (.6)	6 (.4)	-	-
(14) Indiana (C)	1 (.0)	6 (.3)	3 (.1)	-	-
(15) Iowa (*C)	-	2 (.1)	2 (.1)	-	-
(16) Kansas	-	-	3 (.1)	-	-
(17) Kentucky (C)	-	3 (.1)	2 (.1)	-	-
(18) Louisiana	-	1 (.0)	1 (.0)	-	-
(19) Maine (C)	-	6 (.3)	4 (.2)	-	-
(20) Maryland (C)	-	17 (.8)	5 (.2)	-	-
(21) Massachusetts (C)	-	52 (2.4)	14 (.6)	-	-
(22) Michigan	1 (.0)	21 (1.0)	6 (.3)	-	-
(23) Minnesota (*C)	-	2 (.1)	-	-	-
(24) Mississippi	-	-	1 (.0)	-	-
(25) Missouri	-	8 (.4)	3 (.1)	-	-
(26) Montana	-	1 (.0)	-	-	-
(27) Nebraska (C)	-	4 (.2)	1 (.0)	-	-
(28) Nevada	-	-	1 (.0)	-	-
(29) New Hampshire (C)	-	5 (.2)	2 (.1)	-	-
(30) New Jersey (C)	-	137 (6.2)	62 (2.8)	-	-
(31) New Mexico	-	1 (.0)	2 (.1)	-	-
(32) New York (C)	-	902 (40.9)	421 (19.1)	-	-
(33) North Carolina (C)	-	6 (.3)	5 (.2)	-	-
(34) North Dakota	-	-	1 (.0)	-	-
	-	158 33 (1.5)	15 (.7)	-	-

State	0	1 (Female)	2 (Male)	3	7
(36) Oklahoma (C)	-	-	-	1	-
(37) Oregon	-	-	-	-	-
(38) Pennsylvania (C)	-	90 (4.1)	43 (1.9)	-	-
(39) Rhode Island (C)	1	6 (.3)	6 (.3)	-	-
(40) South Carolina (*C)	-	6 (.3)	2 (.1)	-	-
(41) South Dakota (C)	-	-	-	-	-
(42) Tennessee	-	6 (.3)	-	-	-
(43) Texas	-	8 (.4)	4 (.2)	-	-
(44) Utah (C)	-	2 (.1)	-	-	-
(45) Vermont (C)	-	6 (.3)	4 (.2)	-	-
(46) Virginia (C)	-	10 (.5)	2 (.1)	-	-
(47) Washington (C)	-	6 (.3)	1 (.0)	-	-
(48) West Virginia (C)	-	5 (.2)	-	-	-
(49) Wisconsin (C)	-	5 (.2)	4 (.2)	-	-
(50) Wyoming	-	-	-	-	-
(51) District of Columbia (*C)	-	1 (.0)	-	-	-
(52) Guam	-	-	-	-	-
(53) Puerto Rico	-	4 (.2)	3 (.1)	-	-
(54)	-	-	1 (.0)	-	-
(55) Alberta, Canada	-	-	-	-	-
(56) British Columbia, Canada	-	-	-	-	-
(57) New Brunswick, Canada	-	-	-	-	-
(58) Newfoundland, Canada	-	-	-	-	-
(59) Northwest Terr., Canada	-	-	-	-	-
(60) Nova Scotia, Canada	-	-	-	-	-
(61) Ontario, Canada	-	2 (.1)	-	-	-
(62) Prince Edward Is., Canada	-	-	-	-	-
(63) Quebec, Canada	-	-	-	-	-
(64) Saskatchewan	-	-	-	-	-
(65) Europe	-	3 (.1)	-	-	-
(66) Latin America	-	2 (.1)	1 (.0)	-	-
(67) Africa	-	-	-	-	-
(68) Asia	-	-	-	-	-
(69) Australia	-	1 (.0)	-	-	-
(70) Greenland	-	-	-	-	-
(71) Mid-East	-	-	-	-	-
NUMBER	4	1517	685	1	1
COLUMN PERCENT	.2	68.7	31.0	.0	.0

*Compact states are designated by the letter (C) following the name of the state. Out of the total population of 2,208, 87.5% or 1,911 applicants come from the Compact states. States with starred letters (*C) have limited their involvement in the Compact.

Percentages, i.e., total percent, are included by the codes for female (1) and male (2). Six errors occurred in either keypunching or recording; these are reflected by the codes 0, 3, and 7.

There were no applicants from four states: Oklahoma, Idaho, South Dakota, and Wyoming. All of the states except Wyoming are members of the Compact.

TABLE NUMBER 9a

QUESTION 9: How many applicants have New York City and New York State certification?

Four items on the recording form (Variables 21, 25, 29, and 33) were used to code states where certificates were issued. Any additional information regarding issuance of certificates not accounted for would require a format to retrieve applicants whose forms did not (1) contain New York State or New York City certificates in the four spaces allotted for recording, but did (2) contain a code of 2, 4, 6, or 7 for excess information. With the identification number of each applicants an eyeball inspection would have revealed specific information regarding certification as follows:

<u>Code</u>	<u>Description</u>
2	Excess certifications (over 4)
4	Excess institutions <u>and</u> excess certifications
6	Excess certification <u>and</u> excess experience
7	Excess institutions <u>and</u> certifications <u>and</u> experience

One-hundred sixty-two (162) applicants had codes of 2, 4, 6, or 7: 93 of these appeared in the primary sample, 69 in the secondary sample.

Each space provided on the recording form was checked for certificates issued by state of residence. These data are provided below under separate columns for New York City and New York State; in addition the number and percentage for each

variable is included.

PRIMARY (N=1,500)

New York State*	%	Variable	New York City*	%
631	42.1	21	211	14.1
213	14.2	25	123	8.2
72	4.8	29	44	2.9
908	60.5	33	-	-
TOTAL 1,824	-	-	378	-

SECONDARY (N=708)

New York State*	%	Variable	New York City*	%
133	18.8	21	30	4.2
35	4.9	25	38	5.4
3	.4	29	8	1.1
129	18.2	33	-	-
TOTAL 300	-	-	76	-

*We used codes of 32 for New York State and 72 for New York City.

An example of the type of information we anticipated providing can be gleaned from Table 9b (see also the set of instructions for Question 9 sent to the programmer in the Appendix).

TABLE NUMBER 9b

Hand Tabbed Sample of 1000 Forms in
Consecutive Alphabetical Order

Out-Of-State Address	140	14.0%
Out-of-state address and <u>no N.Y. certification</u>		10.4%
Out-of-state address and <u>N.Y. certification</u>		3.6%
New York Address	873	87.3%
Out-of-state certification only	161	16.1%
Out-of-state certification and <u>New York certification only</u>	43	4.3%
Out-of-state certification and <u>New York certification and New</u> <u>York City certification</u>	4	.4%
Out-of-state certification and <u>New York City certification</u>	7	.7%
		21.5%
New York Address		
No certification at all	162	16.2%
New York certification only	328	32.8%
New York City certification only	84	8.4%
New York and New York City certification	84	8.4%
		65.8%
		14.0
		21.5
		65.8
		101.3%

QUESTION 10: How many applicants have studied outside the continental United States? Which countries are most represented?

To determine the number of applicants who attended universities outside the continental United States it was necessary to scan the codes for states of institutions (Variables 02, 07, 12, and 17) in the primary and secondary samples. It can be presumed that this data is a close approximation of the number of individuals who attended colleges outside the continental land mass. The procedure we used excludes the applicants with this educational experience which could be gleaned from an eyeball inspection of all those with excess information codes of 1, 4, 5, or 7:

<u>Code</u>	<u>Description</u>
1	Excess institutions (over 4)
4	Excess institutions <u>and</u> excess certification
5	Excess institutions <u>and</u> excess experience
7	Excess institutions <u>and</u> certification <u>and</u> experience

Without a control for identification number of individuals, accomplishment of this task would have required scanning the entire population.

TABLE NUMBER 10a

Education Completed in Institutions Outside
the Continental United States

SAMPLE

Code	State	Primary				Secondary				Total
		Var 02	Var 07	Var 12	Var 17	Var 02	Var 07	Var 12	Var 17	
11	Hawaii	-	4	1	-	-	1	1	-	7
52	Guam	-	-	-	1	-	-	-	-	1
53	Puerto Rico	8	4	1	-	4	4	2	-	23
54		-	-	-	-	1	-	-	-	1
56	British Columbia, Canada	-	1	-	-	-	-	-	-	1
57	New Brunswick, Canada	-	-	-	-	1	-	-	-	1
60	Nova Scotia, Canada	1	-	-	-	-	-	-	-	1
61	Ontario, Canada	2	-	-	-	1	1	1	-	5
63	Quebec, Canada	1	5	1	-	-	-	-	-	7
65	Europe	-	11	9	4	-	5	3	4	36
66	Latin America	2	1	3	-	1	4	3	1	15
67	Africa	-	-	-	-	-	2	1	-	3
68	Asia	7	3	3	1	2	1	1	1	19
69	Australia	-	-	-	-	-	-	-	-	-
70	Greenland	-	-	-	-	-	-	-	-	-
71	Mid-East	2	1	1	1	1	2	-	-	8
81	Error	1	-	-	-	-	1	-	-	2

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Primary Sample

CODE	ABSOLUTE EFGD	RELATIVE EFGD (PCT)	ADJUSTED EFGD (PCT)	COMP EFGD (PCT)					
1. AL	6	.4	.4	.40	39. RI	6	.4	.4	93.50
3. AZ	2	.1	.1	.50	40. SC	7	.5	.5	94.00
4. AR	2	.1	.1	.70	41. SD	2	.1	.1	94.10
5. CA	6	.4	.4	1.10	42. TN	5	.3	.3	94.50
6. CO	4	.3	.3	1.20	43. TX	5	.3	.3	94.80
7. CT	31	2.1	2.1	3.40	44. UT	3	.2	.2	95.00
8. DE	2	.1	.1	3.50	45. VT	6	.4	.4	95.40
9. FL	15	1.0	1.0	4.50	46. VA	5	.3	.3	95.70
10. GA	5	.3	.3	4.90	48. WV	9	.6	.6	96.30
13. IL	21	1.4	1.4	6.30	49. WI	12	.8	.8	97.10
14. IN	16	1.2	1.2	7.50	50. WY	2	.1	.1	97.30
15. IA	5	.3	.3	7.80	51. DC	17	1.1	1.1	98.40
16. KS	10	.7	.7	8.50	53. PR	1	.5	.5	98.90
17. KY	8	.5	.5	9.00	Boya				
18. LA	4	.3	.3	9.30	60. Scotia	1	.1	.1	99.00
19. ME	8	.5	.5	9.80	Ontario				
20. MD	17	1.1	1.1	10.90	61. Quebec	2	.1	.1	99.10
21. MA	79	5.3	5.3	16.20	Latin	1	.1	.1	99.20
22. MI	21	1.4	1.4	17.60	66. America	2	.1	.1	99.30
23. MN	4	.3	.3	17.90	69. Asia	7	.5	.5	99.80
24. MS	3	.2	.2	18.10	Mid-				
25. MO	11	.7	.7	18.20	71. East	2	.1	.1	99.90
27. NB	4	.3	.3	19.10	72. Error	1	.1	.1	100.00
28. NV	1	.1	.1	19.10					
29. NH	5	.3	.3	19.40					
30. NJ	54	3.6	3.6	23.00					
31. NM	1	.1	.1	23.10					
32. NY	664	57.6	57.6	60.70					
33. NC	18	1.2	1.2	61.90					
34. ND	2	.1	.1	62.00					
35. OH	73	4.9	4.9	66.90					
36. OK	6	.4	.4	67.30					
37. OR	1	.1	.1	67.30					
38. PA	87	5.8	5.8	93.10					
					TOTAL	1500	100.0	100.0	

TABLE NUMBER 10c

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Primary Sample

CODE	ABSOLUTE TIME	RELATIVE TIME (PCT)	ADJUSTED TIME (PCT)	CUM TIME (PCT)					
0.	229	15.3	15.3	15.30	39. RI	5	.3	.3	94.20
1. AL	3	.2	.2	15.50	40. SC	1	.1	.1	94.30
3. AZ	2	.1	.1	15.60	42. TN	7	.5	.5	94.70
4. AR	1	.1	.1	15.70	43. TX	6	.5	.5	95.30
5. CA	16	1.1	1.1	16.70	44. UT	1	.1	.1	95.30
6. CO	5	.3	.3	17.10	45. VT	5	.3	.3	95.70
7. CT	33	2.2	2.2	19.30	46. VA	6	.4	.4	96.10
8. DE	1	.1	.1	19.30	47. WA	3	.2	.2	96.30
9. FL	15	1.0	1.0	20.30	48. WV	4	.3	.3	96.50
10. GA	6	.4	.4	20.70	49. WI	12	.8	.8	97.30
11. HI	4	.3	.3	21.00	50. WY	1	.1	.1	97.40
12. IL	16	1.2	1.2	22.20	51. DC	12	.8	.8	98.20
14. IN	11	.7	.7	22.90	52. Guam	1	.1	.1	98.30
15. IA	6	.4	.4	23.30	53. PR	4	.3	.3	98.60
16. KS	7	.5	.5	23.60	British				
17. KY	7	.5	.5	24.30	56. Colombia	1	.1	.1	98.60
20. MD	15	1.0	1.0	25.30	67. Quebec	5	.3	.3	98.90
21. MA	50	3.3	3.3	28.60	68. Europe	11	.7	.7	99.70
22. MI	21	1.4	1.4	30.00	Latin				
23. MN	2	.1	.1	30.10	66. America	1	.1	.1	99.70
24. MS	1	.1	.1	30.20	69. Asia	3	.2	.2	99.90
25. MO	5	.3	.3	30.50	Mid-				
26. MT	1	.1	.1	30.60	71. East	1	.1	.1	100.00
27. NB	4	.3	.3	30.90					
28. NV	1	.1	.1	30.90					
29. NH	2	.1	.1	31.10					
30. NJ	37	2.5	2.5	33.50					
31. NM	3	.2	.2	33.70					
32. NY	843	56.2	56.2	89.90					
33. NC	1	.1	.1	90.00					
34. OH	26	1.7	1.7	91.70					
36. OK	2	.1	.1	91.90					
37. OR	1	.1	.1	91.90					
38. PA	29	1.9	1.9	93.90					
					TOTAL	1500	100.0	100.0	

TABLE NUMBER 10d

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Primary Sample

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)					
0.	763	50.9	50.9	50.90	30. NJ	20	1.3	1.3	60.50
3. AZ	2	.1	.1	51.00	32. NY	506	33.9	33.9	94.30
5. CA	16	1.1	1.1	52.10	33. NC	2	.1	.1	94.50
6. CO	6	.4	.4	52.50	34. ND	1	.1	.1	94.60
7. CT	15	1.0	1.0	53.50	35. OH	12	.8	.8	95.30
9. FL	8	.5	.5	54.00	37. OR	2	.1	.1	95.50
10. GA	3	.2	.2	54.20	38. PA	19	1.3	1.3	96.70
11. HI	1	.1	.1	54.30	39. RI	2	.1	.1	96.90
12. IL	15	1.0	1.0	55.30	40. SC	1	.1	.1	96.90
14. IN	5	.3	.3	55.60	41. SD	1	.1	.1	97.00
15. IA	1	.1	.1	55.70	42. TN	1	.1	.1	97.10
17. KY	4	.3	.3	55.90	43. TX	4	.4	.4	97.50
19. ME	1	.1	.1	56.00	45. VT	6	.4	.4	97.90
20. MD	5	.3	.3	56.30	46. VA	2	.1	.1	98.00
21. MA	21	1.4	1.4	57.70	49. WI	6	.4	.4	98.40
22. MI	12	.8	.8	58.50	51. DC	6	.4	.4	98.80
23. MN	2	.1	.1	58.70	53. PR	1	.1	.1	98.90
25. MO	4	.3	.3	58.90	63. Quebec	1	.1	.1	98.90
27. ND	2	.1	.1	59.10	65. Europe	9	.6	.6	99.50
28. NV	1	.1	.1	59.10	66. Latin				
					66. America	3	.2	.2	99.70
					69. Asia	3	.2	.2	99.90
					Mid-				
					71. East	1	.1	.1	100.00
					TOTAL	1500	100.0	100.0	

TABLE NUMBER 10e

Primary Sample

CODE	ABSOLUTE FPEC	RELATIVE FPEC (PCT)	ADJUSTED FPEC (PCT)	CLP FPEC (PCT)					
0.	1158	77.2	77.2	77.20	39. RI	1	.1	.1	99.70
3. AZ	2	.1	.1	77.30	40. SC	1	.1	.1	99.80
5. CA	10	.7	.7	78.00	41. SD	1	.1	.1	99.90
6. CO	3	.2	.2	78.20	42. TN	1	.1	.1	99.90
7. CT	9	.6	.6	78.60	43. TX	2	.2	.2	99.10
9. FL	2	.1	.1	78.90	45. VT	2	.1	.1	99.20
13. IL	7	.5	.5	79.40	46. VA	1	.1	.1	99.30
14. IN	8	.5	.5	79.90	49. WI	2	.1	.1	99.50
16. KS	2	.1	.1	80.10	51. DC	1	.1	.1	99.50
17. KY	2	.1	.1	80.20	52. Guam	1	.1	.1	99.60
20. MD	3	.2	.2	80.30	55. Europe	4	.3	.3	99.90
21. MA	15	.9	.9	81.00	60. Asia	1	.1	.1	99.90
22. MI	4	.3	.3	81.50	Mid-				
25. MO	3	.2	.2	81.70	71. East	1	.1	.1	100.00
30. NJ	12	.6	.6	82.50	TOTAL	1500	100.0	100.0	
32. NY	221	14.7	14.7	97.30					
33. NC	1	.1	.1	97.30					
35. OH	6	.4	.4	97.70					
37. OR	1	.1	.1	97.80					
38. PA	13	.9	.9	98.70					

TABLE NUMBER 10f

Secondary Sample

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)				
1. AL	3	.4	.4	.40	42. TN	2	.4	.4
3. AZ	1	.1	.1	.60	43. TX	6	1.1	1.1
4. AR	2	.3	.3	.80	44. UT	2	.3	.3
5. CA	7	1.0	1.0	1.90	45. VT	6	1.1	1.1
6. CO	3	.4	.4	2.40	46. VA	3	.4	.4
7. CT	32	4.5	4.5	6.80	47. WA	3	.4	.4
9. FL	16	2.3	2.3	9.00	48. WV	6	1.1	1.1
10. GA	7	1.0	1.0	10.00	49. WI	7	1.0	1.0
13. IL	12	1.7	1.7	11.70	51. DC	5	.7	.7
14. IN	17	1.7	1.7	13.40	53. PR	4	.6	.6
15. IA	6	.8	.8	14.30	54. Other	1	.1	.1
16. KS	6	.8	.8	15.10	55. New			
17. KY	10	1.4	1.4	16.50	57. Bruns.	1	.1	.1
18. LA	1	.1	.1	16.70	61. Ontario	1	.1	.1
19. ME	4	.6	.6	17.20	63. Europe	2	.3	.3
20. MD	7	1.0	1.0	18.20	64. Latin			
21. MA	64	9.0	9.0	27.30	66. America	1	.1	.1
22. MI	22	3.1	3.1	30.40	68. Asia	2	.3	.3
23. MN	1	.1	.1	30.50	71. Mid-			
24. MS	1	.1	.1	30.60	71. East	1	.1	.1
25. MO	8	1.1	1.1	31.60				
26. MT	1	.1	.1	31.70				
27. NB	5	.7	.7	32.60				
29. NI	8	1.1	1.1	33.70				
30. NJ	50	7.1	7.1	40.80				
31. NM	1	.1	.1	41.00				
32. NY	167	26.4	26.4	67.40				
33. NC	12	1.7	1.7	69.10				
35. OH	47	6.6	6.6	75.70				
37. OR	3	.4	.4	76.10				
38. PA	100	14.1	14.1	90.30				
39. RI	3	.4	.4	90.70				
40. SC	6	.8	.8	91.50				
					TOTAL	706	100.0	100.0

Secondary Sample

(100)	PERCENTAGE TOTAL	RELATIVE FREQ (PCT)	RELATIVE FREQ (PCT)	CUM FREQ (PCT)					
0.	100	22.9	22.9	22.9	42. TN	4	.6	.6	91.80
1. AL	2	.3	.3	23.20	43. TX	3	.4	.4	92.20
2. AZ	1	.1	.1	23.30	44. UT	3	.4	.4	92.60
3. AR	2	.3	.3	23.60	45. VT	4	.6	.6	93.20
4. CA	9	1.3	1.3	24.90	46. VA	9	1.3	1.3	94.50
5. CO	4	.6	.6	25.40	47. WA	4	.6	.6	95.10
6. CT	29	4.1	4.1	29.50	48. WY	3	.4	.4	95.50
7. FL	14	2.0	2.0	31.50	49. WI	6	.8	.8	96.30
10. GA	8	1.1	1.1	32.60	50. DC	5	.7	.7	97.00
11. HI	1	.1	.1	32.70	51. PR	4	.6	.6	97.60
12. IL	17	2.4	2.4	35.10	(1. Ontario)		.1	.1	97.70
13. IN	9	1.3	1.3	36.40	(2. Quebec)	1	.1	.1	97.80
14. IA	4	.6	.6	37.00	(3. Europe)	1	.1	.1	97.90
15. KS	3	.4	.4	37.40	(4. Latin America)		.6	.6	98.50
16. KY	3	.4	.4	37.80	(5. Africa)	2	.3	.3	98.80
17. ME	4	.6	.6	38.40	(6. Asia)	1	.1	.1	98.90
18. MD	10	1.4	1.4	39.80	(7. Mid-East)	2	.3	.3	99.20
19. MA	40	5.6	5.6	45.40	(8. Error)	1	.1	.1	100.00
20. MI	11	2.5	2.5	47.90	TOTAL	764	100.0	100.0	
21. MN	1	.1	.1	48.00					
22. MS	1	.1	.1	48.10					
23. MO	7	1.0	1.0	49.10					
24. NB	7	1.0	1.0	50.10					
25. NH	2	.3	.3	50.40					
26. NJ	44	6.2	6.2	56.60					
27. NY	141	20.9	20.9	77.50					
28. NC	9	1.3	1.3	78.80					
29. ND	1	.1	.1	78.90					
30. OH	52	4.5	4.5	83.40					
31. OR	2	.3	.3	83.70					
32. PA	43	6.1	6.1	89.80					
33. RI	1	.1	.1	90.00					
34. SC	3	.4	.4	91.20					

Secondary Sample

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (FCT)	CUM FREQ (PCT)				
0.	976	10.2	60.2	60.20	93. TX	2	.3	.3
1. AL	2	.3	.3	60.50	95. VT	7	1.0	1.0
2. AZ	1	.1	.1	60.60	96. VA	4	.6	.6
3. AR	1	.1	.1	60.70	98. WV	3	.4	.4
4. CA	10	1.4	1.4	62.10	99. WI	5	.7	.7
5. CO	2	.3	.3	62.40	53. PR	2	.3	.3
6. CT	22	3.1	3.1	65.50	61. Ontario		.1	.1
7. DE	1	.1	.1	65.70	65. Europe ?		.4	.4
8. FL	6	1.1	1.1	66.80	Latin		.4	.4
10. GA	4	.6	.6	67.40	66. America		.4	.4
11. HI	1	.1	.1	67.50	67. Africa	1	.1	.1
13. IL	15	2.1	2.1	69.60	68. Asia	1	.1	.1
14. IN	6	.8	.8	70.50				
15. IA	1	.1	.1	70.60	TOTAL	701	100.0	100.0
16. KS	2	.3	.3	70.90				
17. KY	2	.3	.3	71.20				
18. LA	1	.1	.1	71.30				
19. ME	2	.4	.4	71.80				
20. MD	6	.8	.8	72.60				
21. MA	15	2.1	2.1	74.70				
22. MI	7	1.0	1.0	75.70				
23. MN	1	.1	.1	75.80				
24. MO	3	.4	.4	76.30				
26. MT	1	.1	.1	76.40				
27. NB	4	.6	.6	77.00				
30. NJ	28	4.0	4.0	80.90				
32. NY	16	9.3	9.3	90.10				
33. NC	1	.1	.1	90.40				
34. ND	1	.1	.1	90.50				
35. OH	11	1.6	1.6	92.10				
38. PA	21	3.0	3.0	95.10				
39. RI	1	.1	.1	95.20				
40. SC	1	.1	.1	95.30				
42. TN	1	.1	.1	95.50				

TABLE NUMBER 101

Secondary Sample

CODE	ASSIGNMENT TITLE	RELATIVE INDEX (PCT)	ELIMINATED INDEX (PCT)	COM TOTAL (PCT)	ST. NC	2	.3	.3	56.60
0.	SEE	62.6	62.6	62.60	25. OH	2	.3	.3	97.61
1.	AL	2	.3	.3	26. PA	6	.6	.6	97.90
2.	AR	1	.1	.1	27. TN	1	.1	.1	96.01
3.	CA	6	1.1	1.1	28. TX	2	.3	.3	99.31
4.	CO	3	.9	.9	29. VT	1	.1	.1	95.40
7.	CT	6	1.1	1.1	30. VA	1	.1	.1	99.60
9.	FL	2	.3	.3	31. WA	3	.9	.9	99.00
10.	GA	1	.1	.1	32. WI	1	.1	.1	99.20
13.	IL	8	.6	.6	33. Europe & Latin		.6	.6	99.70
16.	KS	1	.1	.1	34. America		.1	.1	99.90
19.	ME	1	.1	.1	35. Asia	1	.1	.1	107.00
21.	MA	4	.6	.6	101.01	704	100.0	100.0	
22.	MI	4	.6	.6					
23.	MN	1	.1	.1					
25.	MO	1	.1	.1					
27.	NB	1	.1	.1					
29.	NH	2	.3	.3					
30.	NJ	12	1.7	1.7					
31.	NM	1	.1	.1					
32.	NY	61	5.6	5.6					

QUESTION 11: What kind of experiences have the applicants had?

Although we anticipated providing data on the level of experiences (type of job and grade level) of applicants in our sample, half of our data does not permit us to do so. A classification scheme including fifty-one (51) positions was developed for displaying part of the data, and a similar scheme for area of specialization and grade level was developed for related information (see the Appendix and the listing(s) for variables 59 and 60).

The code 0 listed for each variable (34, 38, 42, and 46) and the number indicates that no job was reported by X number of applicants. Data on Table Number 11a for the primary secondary samples revealed the largest and most obvious category is basic classroom teaching. The next five and largest job categories listed were student teaching, substitute per diem, college professor, principal, and supervisor.

Classification of Jobs By Variables

Code	Job Category	Primary Sample (N=1,500)					Secondary Sample (N=708)				TOTAL
		34	38	42	46		34	38	42	46	
01	Teacher (not resource)	1,128	680	349	169		465	305	143	59	3,134
02	Head Teacher Grade Chairman Pool Leader Team Leader	-	1	-	1		1	-	2	-	
03	Aide Teacher Aide Paraprofessional	7	3	4	3		2	2	4	1	
04	Assistant Teacher Teaching Assistant	10	6	3	-		7	7	5	2	
05	Practice or Student Teaching	82	25	9	5		82	21	4	2	23
06	Participation Observation	-	1	1	-		-	1	-	-	
07	Substitute Per Diem	45	63	25	15		33	34	18	11	24
08	Administrative Assistant	5	4	1	4		2	-	-	-	1
09	Administrator	2	6	9	3		2	1	1	-	2
10	Advisor	-	-	1	-		-	-	-	-	
11	Business Manager Treasurer	-	-	-	-		-	-	-	-	
12	Chairman	4	9	3	4		1	3	4	-	
13	Consultant	1	-	2	1		1	-	1	-	
14	Coordinator	2	5	5	4		-	1	1	1	
15	Counselor	3	6	7	3		1	9	2	-	
16	Dean	1	1	3	-		-	-	1	-	
17	Director	3	5	7	3		4	5	5	2	
18	Instructor	1	6	-	-		3	2	2	-	
19	Intern Internship	2	3	2	1		3	2	-	-	
20	Lecturer	-	1	-	-		-	-	-	-	
21	Librarian, College	-	1	-	-		-	-	-	-	
22	Librarian, Public Library	2	1	1	1		-	-	-	-	
23	Manager (not business)	1	-	-	-		-	-	-	-	
24	Principal (not summer school)	10	10	13	13		3	3	6	5	
25	Professor (use if college and rank not specified)	12	12	10	6		6	6	9	9	
26	Psychologist	1	2	1	1		-	1	-	-	
27	Registrar	-	-	-	-		-	-	-	-	
28	Resource Teacher	1	-	1	-		-	-	1	-	

Code	Job Category	Primary Sample (N=1,500)					Secondary Sample (N=708)				TOTAL
		34	38	42	46		34	38	42	46	
29	Social Worker	-	-	-	-		-	-	-	-	-
30	Specialist	-	2	1	2		1	-	-	-	6
31	Summer School Principal	-	1	-	1		-	-	-	-	2
32	Superintendent	1	-	1	1		-	-	1	-	4
33	Assistant Superintendent	1	-	-	-		-	-	-	-	1
34	Supervisor	6	11	8	5		3	1	1	1	36
35	Therapist (not Speech)	-	-	-	-		-	-	-	-	-
36	Tutor	2	3	3	-		1	1	-	1	11
37	Teacher Trainer	2	-	2	-		-	-	-	-	4
38	Teacher and Administrator or Chairman, etc.	10	7	3	2		1	3	3	3	32
39	President	-	-	-	-		-	-	-	-	-
40	L.P.N.	1	-	-	-		-	-	-	-	1
41	Supply Teacher	-	-	-	-		-	-	-	-	-
42	"Special"	-	-	1	-		-	-	-	-	1
43	Volunteer	-	2	2	-		-	-	-	-	4
44	Negotiator	-	-	-	-		-	-	-	-	-
45	Itinerant Teacher	-	-	-	-		-	1	-	-	1
46	Analyst (Project)	-	-	-	-		-	-	-	-	-
47	Coach (Drama)	-	-	-	-		-	-	-	-	-
48	Headmaster	-	-	-	-		1	-	-	-	1
49	Developer	-	-	-	-		-	-	-	-	-
50	Executive Secretary	-	-	-	-		-	-	1	-	1
51	Attendance Teacher	-	-	-	-		-	1	-	-	1
0	(No job reported for inclusion on form)	154	615	1,028	1,252		85	297	493	611	4,539

Errors, Primary Sample

Code 74, Variable 42

Errors, Secondary Sample

Code 57, Variable 38

Classification of Jobs By Variables
Primary

VAR34		ABSOLUTE	RELATIVE	ADJUSTED	CUM
CATEGORY LABEL	CODE	FREQ	FREQ (PCT)	FREQ (PCT)	FREQ (PCT)
00. No job reported for inclusion on form)		154	10.3	10.3	10.30
01. Teacher (not resource)		1128	75.2	75.2	85.50
03. Aide, Teacher Aide, Paraprofessional		7	.5	.5	86.00
04. Assistant Teacher, Teaching Assistant		10	.7	.7	86.60
05. Practice or Student Teaching		62	5.5	5.5	92.10
07. Substitute Per Diem		45	3.0	3.0	95.10
08. Administrative Assistant		5	.3	.3	95.40
09. Administrator		2	.1	.1	95.50
12. Chairman		4	.3	.3	95.80
13. Consultant		1	.1	.1	95.90
14. Coordinator		2	.1	.1	96.00
15. Counselor		3	.2	.2	96.20
16. Dean		1	.1	.1	96.30
17. Director		3	.2	.2	96.50
18. Instructor		1	.1	.1	96.60
19. Intern, Internship		2	.1	.1	96.70
22. Librarian, Public Library		2	.1	.1	96.80
23. Manager (not business)		1	.1	.1	96.90
24. Principal (not summer school)		10	.7	.7	97.50
25. Professor (use if college and rank not specified)		12	.8	.8	98.30
26. Psychologist		1	.1	.1	98.40
28. Resource Teacher		1	.1	.1	98.50
32. Superintendent		1	.1	.1	98.60
33. Assistant Superintendent		1	.1	.1	98.60
34. Supervisor		6	.4	.4	99.00
36. Tutor		2	.1	.1	99.10
37. Teacher Trainer		2	.1	.1	99.30
38. Teacher and Administrator or Chairman, etc.		10	.7	.7	99.90
40. L.P.N.		1	.1	.1	100.00
	TOTAL	1500	100.0	100.0	

TABLE NUMBER 11c

Classification of Jobs By Variables
Primary

VAR3P			RELATIVE	ADJUSTED	CUM
CATEGORY LABEL	CODE	ABSOLUTE FREQ	FREQ (PCT)	FREQ (PCT)	FREQ (PCT)
00. No job reported for inclusion on form		615	41.0	41.0	41.00
01. Teacher (not resource)		688	45.9	45.9	86.90
02. Head Teacher, Grade Chairman, Pool Leader, Team Leader	1	1	.1	.1	86.90
03. Aide, Teacher Aide, Paraprofessional	3	3	.2	.2	87.10
04. Assistant Teacher, Teaching Assistant	6	6	.4	.4	87.50
05. Practice or Student Teaching	25	25	1.7	1.7	89.20
06. Participation, Observation	1	1	.1	.1	89.30
07. Substitute Per Diem	63	63	4.2	4.2	93.50
08. Administrative Assistant	4	4	.3	.3	93.70
09. Administrator	6	6	.4	.4	94.10
12. Chairman	9	9	.6	.6	94.70
14. Coordinator	5	5	.3	.3	95.10
15. Counselor	6	6	.4	.4	95.50
16. Dean	1	1	.1	.1	95.50
17. Director	5	5	.3	.3	95.90
18. Instructor	6	6	.4	.4	96.30
19. Intern, Internship	3	3	.2	.2	96.50
20. Lecturer	1	1	.1	.1	96.50
21. Librarian, College	1	1	.1	.1	96.60
22. Librarian, Public Library	1	1	.1	.1	96.70
24. Principal (not summer school)	10	10	.7	.7	97.30
25. Professor (use if college and rank not specified)	12	12	.8	.8	98.10
26. Psychologist	2	2	.1	.1	98.30
30. Specialist	2	2	.1	.1	98.40
31. Summer School Principal	1	1	.1	.1	98.50
34. Supervisor	11	11	.7	.7	99.20
36. Tutor	3	3	.2	.2	99.40
38. Teacher and Administrator or Chairman, etc.	7	7	.5	.5	99.90
43. Volunteer	2	2	.1	.1	100.00
TOTAL		1500	100.0	100.0	

TABLE NUMBER 11d

(Classification of Jobs By Variables
Primary)

VAR42		ABSOLUTE	RELATIVE	ADJUSTED	CUM
CATEGORY LABEL	CODE	FREQ	FREQ	FREQ	FREQ
			(PCT)	(PCT)	(PCT)
00. No job reported for inclusion on form		1028	66.5	66.5	66.50
01. Teacher (not resource)		349	23.3	23.3	91.80
03. Aide, Teacher Aide, Paraprofessional		4	.3	.3	92.10
04. Assistant Teacher, Teaching Assistant		2	.2	.2	92.30
05. Practice or Student Teaching		9	.6	.6	92.90
06. Participation, Observation		1	.1	.1	92.90
07. Substitute Per Diem		25	1.7	1.7	94.60
08. Administrative Assistant		1	.1	.1	94.70
09. Administrator		2	.1	.1	94.80
10. Advisor		1	.1	.1	94.90
12. Chairman		3	.2	.2	95.10
13. Consultant		2	.1	.1	95.20
14. Coordinator		5	.3	.3	95.50
15. Counselor		7	.5	.5	96.00
16. Dean		3	.2	.2	96.20
17. Director		7	.5	.5	96.70
19. Intern, Internship		2	.1	.1	96.80
22. Librarian, Public Library		1	.1	.1	96.90
24. Principal (not summer school)		12	.9	.9	97.70
25. Professor (use if college and rank not specified)		10	.7	.7	98.40
26. Psychologist		1	.1	.1	98.50
28. Resource Teacher		1	.1	.1	98.50
30. Specialist		1	.1	.1	98.60
32. Superintendent		1	.1	.1	98.70
34. Supervisor		8	.5	.5	99.20
36. Tutor		3	.2	.2	99.40
37. Teacher Trainer		2	.1	.1	99.50
38. Teacher and Administrator or Chairman, etc.		3	.2	.2	99.70
42. "Special"		1	.1	.1	99.80
43. Volunteer		2	.1	.1	99.90
74. Error		1	.1	.1	100.00
TOTAL		1500	100.0	100.0	

TABLE NUMBER 11e
Classification of Jobs By Variables
Primary

VAR46		ABSOLUTE	RELATIVE	ADJUSTED	CUM
CATEGORY LABEL	CODE	FREQ	FREQ (PCT)	FREQ (PCT)	FREQ (PCT)
00. No job reported for inclusion on form		1252	83.5	83.5	83.50
01. Teacher (not resource)		169	11.3	11.3	94.70
02. Head Teacher, Grade Chairman		1	.1	.1	94.80
03. Aide, Teacher Aide, Paraprofessional		3	.2	.2	95.00
05. Practice or Student Teaching		5	.3	.3	95.30
07. Substitute Per Diem		15	1.0	1.0	96.30
08. Administrative Assistant		4	.3	.3	96.60
09. Administrator		3	.2	.2	96.80
12. Chairman		4	.3	.3	97.10
13. Consultant		1	.1	.1	97.10
14. Coordinator		4	.3	.3	97.40
15. Counselor		3	.2	.2	97.60
17. Dean		3	.2	.2	97.80
19. Intern, Internship		1	.1	.1	97.90
22. Librarian, Public Library		1	.1	.1	97.90
24. Principal (not summer school)		13	.9	.9	98.80
25. Professor (use if college and rank not specified)		6	.4	.4	99.20
26. Psychologist		1	.1	.1	99.30
30. Specialist		2	.1	.1	99.40
31. Summer School Principal		1	.1	.1	99.50
32. Superintendent		1	.1	.1	99.50
34. Supervisor		5	.3	.3	99.90
38. Teacher and Administrator or Chairman, etc.		2	.1	.1	100.00
	TOTAL	1500	100.0	100.0	

TABLE NUMBER 11f

Classification of Jobs By Variables
Secondary

VAR 34			RELATIVE	ADJUSTED	CUM
CATEGORY 12:11	CODE	# OF JOBS	FREQ (PCT)	FREQ (PCT)	FREQ (PCT)
00. No job reported for inclusion on form		15	12.0	12.0	12.00
01. Teacher (not resource)		467	65.7	65.7	77.70
02. Head Teacher, Grade Chairman, Pool Leader, Team Leader		1	.1	.1	77.80
03. Aide, Teacher Aide, Paraprofessional		2	.3	.3	78.10
04. Assistant Teacher, Teaching Assistant		7	1.0	1.0	79.10
05. Practice or Student Teaching		12	11.6	11.6	90.70
07. Substitute Per Diem		13	4.7	4.7	95.30
08. Administrative Assistant		2	.3	.3	95.60
09. Administrator		2	.3	.3	95.90
12. Chairman		1	.1	.1	96.00
13. Consultant		1	.1	.1	96.20
15. Counselor		1	.1	.1	96.30
17. Director		4	.6	.6	96.90
18. Instructor		3	.4	.4	97.30
19. Intern, Internship		3	.4	.4	97.70
24. Principal (not summer school)		3	.4	.4	98.20
25. Professor (use if college and rank are not specified)		6	.8	.8	99.00
30. Specialist		1	.1	.1	99.20
34. Supervisor		3	.4	.4	99.60
36. Tutor		1	.1	.1	99.70
38. Teacher and Administrator or Chairman, etc.		1	.1	.1	99.90
42. Headmaster		1	.1	.1	100.00
	10121	707	100.0	100.0	

TABLE NUMBER 11g
Classification of Jobs by Variables
Secondary

VAR3E		ABSOLUTE	RELATIVE	ADJUSTED	CUM
CATEGORY LABEL	CODE	FREQ	FREQ	FREQ	FREQ
			(PCT)	(PCT)	(PCT)
00. No job reported for inclusion on form		297	41.9	41.9	41.90
01. Teacher (not resource)		305	43.1	43.1	85.00
03. Aide, Teacher Aide, Paraprofessional		2	.3	.3	85.30
04. Assistant Teacher, Teaching Assistant		7	1.0	1.0	86.30
05. Practice or Student Teaching		21	3.0	3.0	89.30
06. Participation, Observation		1	.3	.3	89.40
07. Substitute Per Diem		24	4.6	4.6	94.20
09. Administrator		1	.1	.1	94.40
12. Chairman		3	.4	.4	94.80
14. Coordinator		1	.1	.1	94.90
15. Counselor		9	1.3	1.3	96.20
17. Director		5	.7	.7	96.90
18. Instructor		2	.3	.3	97.20
19. Intern, Internship		2	.3	.3	97.50
24. Principal (not summer school)		3	.4	.4	97.90
25. Professor (use if college and rank are not specified)		6	.8	.8	98.70
27. Registrar		1	.1	.1	98.90
34. Supervisor		1	.1	.1	99.00
36. Tutor		1	.1	.1	99.20
38. Teacher and Administrator or Chairman, etc.		3	.4	.4	99.60
45. Itinerant Teacher		1	.1	.1	99.70
51. Attendance Teacher		1	.1	.1	99.90
57. Error		1	.1	.1	100.00
TOTAL		706	100.0	100.0	

TABLE NUMBER 11h

Classification of Jobs By Variables
Secondary

VAR42					
CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
00. No job reported for inclusion on form		493	69.6	69.6	69.60
01. Teacher (not resource)		143	20.2	20.2	89.80
02. Head Teacher, Grade Chairman, Pool Leader, Team Leader		2	.3	.3	90.10
03. Aide, Teacher Aide, Paraprofessional		4	.6	.6	90.70
04. Assistant Teacher, Teaching Assistant		5	.7	.7	91.40
05. Practice or Student Teaching		4	.6	.6	91.90
07. Substitute Per Diem		16	2.5	2.5	94.50
09. Administrator		1	.1	.1	94.60
12. Chairman		4	.6	.6	95.20
13. Consultant		1	.1	.1	95.30
14. Coordinator		1	.1	.1	95.50
15. Counselor		2	.3	.3	95.80
16. Dean		1	.1	.1	95.90
17. Director		5	.7	.7	96.60
18. Instructor		2	.3	.3	96.90
24. Principal (not summer school)		6	.8	.8	97.70
25. Professor (use if college and rank not specified)		9	1.3	1.3	99.00
28. Resource Teacher		1	.1	.1	99.20
32. Superintendent		1	.1	.1	99.30
34. Supervisor		1	.1	.1	99.40
38. Teacher and Administrator or Chairman, etc.		2	.4	.4	99.90
50. Executive Secretary		1	.1	.1	100.00
	TOTAL	707	100.0	100.0	

Classification of Jobs by Variables
Secondary

VAR96		ABSOLUTE	RELATIVE	ADJUSTED	CUM
CATEGORY LABEL	CODE	FREQ	FREQ	FREQ	FREQ
		(PCT)	(PCT)	(PCT)	(PCT)
00. No job reported for inclusion on form)	11	86.3	86.3	86.30	
01. Teacher (not resource	9	8.7	8.3	94.60	
03. Aide, Teacher Aide, Paraprofessional	1	.1	.1	94.80	
04. Assistant Teacher, Teaching Assistant	2	.3	.3	95.10	
05. Practice or Student Teaching	2	.3	.3	95.30	
07. Substitute Per Diem	11	1.6	1.6	96.90	
14. Coordinator	1	.1	.1	97.00	
17. Director	2	.3	.3	97.30	
24. Principal (not summer school)	5	.7	.7	98.00	
25. Professor (use if college and and rank not specified)	5	1.3	1.3	99.30	
34. Supervisor	1	.1	.1	99.40	
36. Tutor	1	.1	.1	99.60	
38. Teacher and Administrator or Chairman, etc.	3	.4	.4	100.00	
TOTAL		100	100.0	100.0	

QUESTION 13: How many applicants received their bachelor's degrees when they were twenty-five or older?

This question cannot be answered at this time with the information available to us. Earlier a hand tally had indicated that we might have a small percentage of individuals who completed degrees after the age of twenty-five.

QUESTION 15: What percentage of applicants reside in the major cities of New York State?

What constitutes a "major city" is debatable and subject to varying criteria dependent on the intentions or purposes of an investigator. In census type studies a "major city" would probably be defined as a Standard Metropolitan Statistical Area (SMSA). This term would be used to justify inclusion of some large and small population areas on the fringes of a city, an area just outside the up to a specified distance (as well as the city itself), or areas between adjacent cities (including the cities).

Utilization of any criteria like this to define "major city" was not considered useful. Perhaps there is a common sense notion of "major city" or population area(s) familiar to the inhabitants of most states. These areas may be designated by using a criterion of (1) size, (2) region, or (3) size and region. In New York State these regions would more than likely include the Capital City area, northern New York, western New York, south central New York, Westchester County, Orange-Dutchess-Putnam Counties, Long Island, and New York City.

Three procedures have been used to include applicants in these areas:

- (1) Applicants whose cities/towns were written on index cards were automatically included in the respective regions.

- (2) A separate stack was made consisting of small towns/villages not known and zip codes were used to include them in the population of the nearest city/region, excluding small towns which could not be found speedily on a road map. Each of the remaining cards was checked against the list of cities, etc. on the map and coded. After each was found it was included amongst the others for the respective city/region.

We have accounted for only 1,402 (or 93.4%) of 1,500 in the primary sample because the cards were being used in different ways when this data was being compiled. The remaining or missing 98 cards were merged with others, and it was not considered possible to include them.

TABLE NUMBER 15a

<u>Cities/Regions</u>	<u>Number</u>	<u>%</u>
<u>Capital City Area</u>		
(1) Albany	37	
(2) Schenectady	28	
(3) Troy	8	
(4) Glens Falls-Saratoga	10	
	83	5.3
<u>Northern New York</u>		
(5) Massena-Plattsburgh-Potsdam, etc.	9	
	9	.6
<u>Western New York</u>		
(6) Syracuse	49	
(7) Buffalo-Niagara Falls	60	
(8) Rochester	83	
	192	12.8
<u>South Central New York</u>		
(9) Elmira-Ithaca	15	
(10) Binghamton	17	
(11) Utica-Rome	16	
	48	3.2
<u>Orange-Dutchess-Putnam Counties</u>		
(12) Kingston-Poughkeepsie-New Paltz-Newburgh	52	
(13) Spring Valley-Suffern, etc.	50	
	102	6.8
<u>Westchester County</u>		
(14) Yonkers	24	
(15) White Plains-Scarsdale-Mount Vernon, etc.	65	
(16) Long Island	205	
(17) New York City	502	
(18) Out-of-State	161	
(19) Unidentified	11	
	968	64.5
(20) Missing	98	6.5

N=1,500

QUESTION 16: How many out-of-staters are actually working?

The primary sample was checked to identify all applicants with codes for states outside New York and/or the actual addresses because the secondary sample (N=708) consisted of all persons with out-of-state addresses in the population of 7,540. Their names, identification and social security numbers, and year of birth were listed and subsequently keypunched.

An agreement was made with the Bureau of Education Data System of the State Education Department to carry out this operation, the results of which were transmitted by a division representative on July 29, 1976. Earlier in the year we had discussed three ways of getting this information. Two of the possibilities involved approvals from agencies, i.e., the State Education Department and the New York State Teachers Retirement Association, the final one required access to data compiled by the Bureau of Education Data System. It was not necessary to manually examine the data as a result of the Division's receptivity.

The names and additional verifying information was checked against the files listing personnel employed in the schools. Although previous printouts indicated that we had 838 out-of-staters in both samples, 130 in the primary and 708 in the secondary, 868 names were actually submitted. Twenty-two (22) more persons actually were included on the basis of information contained on our index cards.

Of the 868 names submitted, 154 have been employed in New York State; this amounts to 18.0% of all out-of-state applicants in our samples of 2,208. It will be necessary to review the data again to determine whether any individuals should be excluded from the group.

OUT-OF-STATERS EMPLOYED IN NEW YORK

Figures From Previous Printouts	Sample Submitted For Analysis	Possible Error
Primary Sample N=130	152	+22
Secondary Sample N=708	<u>708</u>	
TOTAL	860	

Number Employed	Out-Of-Staters/Sample Size	Percent
154	868	18.0
154	2,208	6.9

QUESTION 18: How much time is involved in completing the certification process?

Primary Sample

Space was provided on the recording forms to specify the dates on which applications were received and approved. In each instance the dates on the form were scanned and, where problems existed, it was necessary to review certification dates and/or teaching experience to resolve discrepancies. On some of the forms (42) the stamp mark which indicated the application was received had faded and could not be determined; hence most of these forms had a slash mark (/), a simple notation that the problem could not be resolved.

There is a slight variation in number because the primary sample contained 1,506 at the time this information was compiled. The last six applicants were eliminated to reduce the group from 1,506 to 1,500. One-hundred and thirty (130) out-of-staters are included in the primary sample.

The month of the year was inserted on one side of the chart, the number of weeks (52) involved in approving applications appears at the top, and at the far right. Stars were used (1) to denote

Month Application Received	Number of Weeks Involved In Processing Applications	TOTAL Number Per Month
1 ↓ 12	1-52 Weeks	

applications activated in 1973, but approved in 1974,

(2) applications with problems requiring 52 weeks or more for approval, and (3) applications with conflicting and/or unrecorded dates for receipt and approval. In the primary sample the data reveal that:

- (1) 41.8% (N=1,506) or 631 applications were approved in 31 days or less
- (2) 23.1% (N=1,506) or 349 applications required 4-8 weeks for approval
- (3) .65% (N=1,506) applications were approved in 8 weeks or less
- (4) 13.8% (N=1,506) or 209 applications required from 8-16 weeks for approval
- (5) 78.9% (N=1,506) or 1,189 applications were approved in four months or less, although the majority of the applications (65%) were approved in less than a month
- (6) 50.7% (N=1,506) applications were processed from January-June 1974. At least 100 applications were processed during January, February, May, June, July, August, and September. There is a significant reduction in the number of applications received during December (37); based on this data, the range for applications all other months varies from a low of 91 to a high of 165.

Secondary Sample

The dates on 706 forms were scanned to compile figures for the secondary sample, a group consisting of all out-of-staters in the population of 7,540 from which the space sample of 1,500 was taken. A little less than half (48.4%, N=342) of the applications for certification were granted the first six months

of 1974. When the year is broken down on a quarterly basis, the peak months for granting certificates are the middle quarters (April-September):

MONTHS	NUMBER GRANTED	PERCENT
January-March	123	17.4
April-June	219	31
July-September	224	31.7
October-December	140	19.8

62.7%

These data also indicate that 87.39% or 618 applicants (N=706) were granted certificates in four months or less.

MONTHS REQUIRED TO GRANT CERTIFICATES	NUMBER APPROVED	PERCENT
0	100	14.10
1	275	38.90
2	156	22.09
3	58	8.20
4	29	4.10
5-10	49	6.90
11-16	19	2.60
17-22	9	1.20
23-28	5	.70

87.39%

11.40%

14TH
APPLICATION
RECEIVED

•	52
••	51
•••	23
TOTAL	1506

152

0032 WEEK -

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
11	13	17	6	2	1	11	1	2	-	-	1	99
5	5	10	6	6	6	13	8	12	-	2	15	91
11	23	27	12	9	7	26	8	14	-	2	16	190
***Problems with date on applications												42
TOTAL												232

***Problems with date
on applications

TOTAL

Secondary Sample

TIME ELAPSED BETWEEN RECEIPT
AND GRANTING OF CERTIFICATION

<u>MONTHS</u>	<u>NUMBER</u>	<u>MONTHS</u>	<u>NUMBER</u>
0	100	15	2
1	275	16	1
2	156	17	2
3	58	18	0
4	29	19	1
5	20	20	2
6	12	21	1
7	6	22	3
8	6	23	0
9	2	24	2
10	3	25	2
11	4	26	0
12	5	27	0
13	4	28	1
14	3		

NUMBER GRANTED PER CALENDAR MONTH

January	40	July	134
February	27	August	39
March	56	September	51
April	63	October	48
May	71	November	46
June	85	December	46

NUMBER GRANTED PER CALENDAR MONTH

	1/74	2/74	3/74	4/74	5/74	6/74	7/74	8/74	9/74	10/74	11/74	12/74
2/72		1										
3/72			1									
4/72					1							
5/72			1									
7/72					1						1	
8/72					1							
9/72										1		
10/72								1				
1/73								1				
2/73				1		1				1		
3/73	1			1					1			1
4/73		1				1	1					
5/73		1			1	1						
6/73							1					
7/73	2	1						1	1			1
8/73	2	1	2					1			1	
9/73	4	1	3		1		1	1				
10/73	7	2	1	2								
11/73	13	3	1	2						1	2	
12/73	6	13	2	2			1				1	1
1/74	5	3	23	7	5	2	4	1	2			
2/74			19	24	10	1	5			1	1	
3/74			3	16	24	4	4				1	
4/74				8	24	19	5	2	4			1
5/74					3	48	19	3	3	1		1
6/74						8	55	4	6	1	2	
7/74							38	18	5	4	3	
8/74								6	22	6	4	1
9/74									7	21	5	3
10/74										11	21	6
11/74											4	22
12/74												8
	40	27	56	63	71	85	134	39	51	48	46	46

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
No												
Date												
1/72												
2/72		24										
3/72			24									
4/72					25							
5/72			22									
6/72											28	
7/72					22							
8/72					21							
9/72										25		
10/72								22				
11/72												
12/72												
1/73								19				
2/73				14		16				20		
3/73	10			13								
4/73		10				14	15		17			20
5/73		9			12	13						
6/73							13					
7/73	6	7						13	14			17
8/73	5	6	7					12			15	
9/73	4	5	6		8		10	11				
10/73	3	4	5	6								
11/73	2	3	4	5						11	12	
12/73	1	2	3	4							11	12
1/74	0	1	2	3	4	5	6	7	8			11
2/74		0	1	2	3	4	5			8	9	
3/74			0	1	2	3	4				8	
4/74				0	1	2	3	4	5			8
5/74					0	1	2	3	4	5		7
6/74						0	1	2	3	4	5	
7/74							0	1	2	3	4	
8/74								0	1	2	3	4
9/74									0	1	2	3
10/74										0	1	2
11/74											0	1
12/74												0

II

TABLES DEVELOPED AS A RESULT OF
EYEBALL INSPECTION PRIOR TO SUBMITTING
PUNCHED CARDS FOR COMPUTER OPERATIONS

QUESTION 1: How old are the out-of-state applicants in the secondary sample?

QUESTION 2: How many applicants from the compact states completed degrees or course work in New York State?

The three charts which follow resulted from manipulation of the data before we drafted a set of instructions for the programmer. Basically they provide information on the ages of persons, the number/percentage of degrees (as well as courses or programs in progress) completed in New York State by individuals residing in other states.

Table Number 142a provides data on the year of birth, number of persons involved, their chronological age, and the percentage:

- (1) 193 or 27.25% of the applicants were 25 years of age or less when they applied for certification.
- (2) 592 or 83.91% of the applicants were 35 years of age or less when they applied for certification.
- (3) Non-residents in this sample applying for certification were less than 40 years of age; 663 or 93.64% of the applicants were born in 1931 or later.

In Table Number 142b the percentages reflecting sex, academic degrees or course work completed requires a finer degree of work. We checked the data to determine whether out-of-staters had attended colleges and/or universities in New York; the reason for doing this was largely one of trying to get an estimate of the mobility of applicants. Probably a slightly different picture would emerge if we cross-tabulated all

academic work completed in contiguous states (Connecticut, Massachusetts, Pennsylvania, New Jersey and Vermont) or the northeastern states (including Ohio). We were also interested in whether the data might allow for the inference that individuals who were former residents are returning home. This inference is a possibility when data are reviewed for completion of associate's and bachelor's degrees. It is not possible to carry this inference further with the data regarding advanced degrees -- more information would have been necessary. And finally the data does not indicate whether individuals who completed associate's degrees, bachelor's degrees, etc. are the same persons. The data are grouped by contiguous states and compact.

The difference between Table Number 142b and Table Number 142c is cosmetic: additional information covering U.S. possessions and several countries abroad are included.

TABLE NUMBER 1&2a

SECONDARY SAMPLE

POPULATION: 710 OUT-OF-STATERS NOT INCLUDED IN SPACE SAMPLE

<u>YEAR OF BIRTH</u>	<u>NUMBER OF PERSONS</u>	<u>CHRONOLOGICAL AGE</u>	<u>PERCENT</u>
1909	1	67	.14
10	1	66	.14
	2		
1911	0	65	0
12	0	64	0
13	0	63	0
14	1	62	.14
15	0	61	0
16	0	60	0
17	0	59	0
18	0	58	0
19	0	57	0
20	4	56	.56
	5		
1921	1	55	.14
22	1	54	.14
23	3	53	.42
24	3	52	.42
25	6	51	.85
26	2	50	.28
27	3	49	.42
28	7	48	.99
29	8	47	1.13
30	3	46	.42
	37		
1931	8	45	1.13
32	7	44	.99
33	6	43	.85
34	7	42	.99
35	6	41	.85
36	5	40	.71
37	7	39	.99
38	8	38	1.13
39	8	37	1.13
40	9	36	1.27
	71		
1941	13	35	1.84
42	14	34	1.98
43	16	33	2.25
44	23	32	3.25
45	35	31	4.94
46	40	30	5.46
47	67	29	9.46
48	67	28	9.46
49	62	27	8.76
50	62	26	8.76
	399		
1951	110	25	15.54
52	73	24	10.31
53	9	23	1.27
54	1	22	.14
55	0	21	0
	193		
	TOTAL	708	

**Two forms were spoiled.

ABLE NUMBER
142b

REPORTED EDUCATION IN NEW YORK STATE
UNDERGRADUATE GRADUATE

STATE	Compact st. pop.	SEX				M&F TOTAL	REPORTED EDUCATION IN NEW YORK STATE					
		M	%	F	%		A.S.	B.A.	%	M.A.	OTHER	%
Alabama	N	1	.50	2	.39	.42	0	0	0	0	2	.96
Alaska	Y	0	0	0	0	0	0	0	0	0	0	0
Arizona	N	1	.50	2	.39	.42	1	1	1.04	0	2	.96
Arkansas	N	0	0	1	.20	.14	0	0	0	0	0	0
California	Y	3	1.49	17	3.35	2.82	2	8	5.18	0	6	2.88
Colorado	N	0	0	2	.39	.42	0	1	.52	0	1	.48
Connecticut	Y	24	11.88	64	12.60	12.39	1	22	11.92	13	18	14.90
Delaware	Y	1	.50	2	.39	.42	0	0	0	0	0	0
Florida	Y	5	2.48	19	3.74	3.38	1	7	4.15	2	4	2.88
Georgia	N	2	.99	1	.20	.42	0	1	.52	0	1	.48
Hawaii	Y	0	0	1	.20	.14	0	1	.52	0	0	0
Idaho	Y	0	0	0	0	0	0	0	0	0	0	0
Illinois	N	6	2.97	12	2.36	2.54	1	5	3.12	1	3	1.92
Indiana	Y	3	1.49	6	1.18	1.27	0	0	0	2	2	1.92
Iowa	N	2	.99	1	.20	.42	0	1	.52	0	1	.48
Kansas	N	2	.99	0	0	.28	1	0	.52	0	0	0
Kentucky	Y	1	.50	2	.39	.42	0	0	0	0	0	0
Louisiana	N	1	.50	0	0	.14	0	0	0	0	0	0
Maine	Y	2	.99	5	.98	.99	0	4	2.07	1	1	.96
Maryland	Y	3	1.49	13	2.56	2.25	2	7	4.66	1	5	2.88

STATE	Compact st. num.	SEX				M&F TOTAL	REPORTED EDUCATION					
		M		F			UNDERGRADUATE			GRADUATE		
		M	%	F	%		A.S.	B.A.	%	M.A.	OTHER	%
1) Massachusetts	Y	10	4.95	40	7.87	7.04	0	9	4.66	2	8	4.81
2) Michigan	N	5	2.48	17	3.35	3.10	0	5	2.59	4	0	1.92
3) Minnesota	N	0	0	2	.39	.42	0	0	0	0	0	0
4) Mississippi	N	1	.50	0	0	.14	0	0	0	0	0	0
5) Missouri	N	3	1.49	6	1.18	1.27	0	0	0	0	0	0
6) Montana	N	0	0	1	.20	.14	1	1	1.04	0	0	0
7) Nebraska	Y	1	.50	4	.79	.70	0	0	0	0	2	.96
8) Nevada	N	1	.50	0	0	.14	0	0	0	0	0	0
9) New Hampshire	Y	1	.50	4	.79	.70	0	1	.52	1	0	.48
10) New Jersey	Y	48	23.76	114	22.44	22.82	4	49	27.46	36	35	34.13
11) New Mexico	N	2	.99	1	.20	.14	0	3	1.55	1	1	.96
12) North Carolina	Y	5	2.48	6	1.18	1.55	1	1	1.04	1	0	.48
13) North Dakota	N	1	.50	0	0	0	0	0	0	0	0	0
14) Ohio	Y	12	5.94	25	4.92	5.21	0	1	.52	1	5	2.88
15) Oklahoma	Y	0	0	0	0	0	0	0	0	0	0	0
16) Oregon	N	0	0	1	.20	.14	0	0	0	0	1	.48
17) Pennsylvania	Y	33	16.34	80	15.78	15.92	1	21	11.40	7	18	12.02
18) Rhode Island	Y	3	1.49	6	1.18	1.27	0	4	2.07	0	1	.48
19) South Carolina	N	2	.99	6	1.18	1.13	0	2	1.04	0	0	0
20) South Dakota	Y	0	0	0	0	0	0	0	0	0	0	0
205						206						

REPORTED EDUCATION IN NEW YORK STATE
UNDERGRADUATE GRADUATE

STATE	Complete St. Dem.	SEX				M&F TOTAL						
		M	%	F	%		A.S.	B.A.	%	M.A.	OTHER	%
Tennessee	N	0	0	2	.39	.28	0	1	.52	0	0	0
Texas	N	4	1.98	8	1.57	1.69	0	6	3.11	2	4	2.88
Utah	Y	0	0	1	.20	.14	0	0	0	0	0	0
Vermont	Y	3	1.49	7	1.38	1.41	0	1	.52	0	4	1.92
Virginia	Y	2	.99	5	.98	.99	0	1	.52	0	0	0
Washington	Y	1	.50	4	.79	.70	0	3	1.59	0	1	.48
West Virginia	Y	0	0	3	.59	.42	0	1	.52	1	0	.48
Wisconsin	Y	3	1.49	2	.39	.70	0	1	.52	0	0	0
Wyoming	N	0	0	0	0	0	0	0	0	0	0	0
Washington DC	N	0	0	0	0	0	0	0	0	0	0	0
Guam	N	0	0	0	0	0	0	0	0	0	0	0
Puerto Rico	N	2	.99	5	.98	.99	0	2	1.04	1	1	.96
Virgin Islands	N	1	.50	0	0	.14	0	1	.52	0	1	.48
Amer. Samoa	N	0	0	0	0	0	0	0	0	0	0	0
ER												
Belgium		0	0	1	.20	.14	0	1	.52	0	0	0
Canal Zone		0	0	1	.20	.14	0	0	0	0	1	.48
London, Ont. Canada		0	0	1	.20	.14	0	1	.52	0	0	0
Madrid, Spain		0	0	1	.20	.14	0	1	.52	1	0	.48

STATE	Country st. num.	SEX				M&F TOTAL	REPORTED EDUCATION IN NEW YORK STATE					
							UNDERGRADUATE			GRADUATE		
		M	%	F	%		A.S.	B.A.	%	M.A.	OTHER	%
Thessalonika, Greece		0	0	1	.20	.14	0	0	0	1	0	.48
Panoria, New South Wales, Australia		0	0	1	.20	.14	0	1	.52	0	0	0
Toronto, Ont., Canada		1	.5	1	.20	.28	0	0	0	0	0	0
DP, Mexico		0	0	1	.20	.14	0	1	.52	0	0	0
TOTALS		202		508			16	177		79	129	

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TABLE NUMBER 142C

STATE	<u>Contiguous States</u>			<u>Education Completed in New York State</u>					
	M	F	M&F TOTAL	AS	BA	S	MA	OTHER	T
(7) Connecticut	11.88 (24)	12.60 (64)	12.39	1	22	11.92	13	18	14.90
(21) Massachusetts	4.95 (10)	7.87 (40)	7.04	-	9	4.66	4	-	1.92
(30) New Jersey	23.76 (48)	22.44 (114)	22.82	4	49	27.46	36	35	34.13
(38) Pennsylvania	16.34 (33)	15.75 (80)	15.92	1	21	11.40	7	18	12.02
(45) Vermont	1.49 (3)	1.38 (7)	1.41	-	1	.52	-	4	1.92
<u>Compact States</u>									
(2) Alaska	-	-	-	-	-	-	-	-	-
(5) California	1.49 (3)	3.35 (17)	2.82	2	8	5.18	-	6	2.88
(7) Connecticut	11.88 (24)	12.60 (64)	12.39	1	22	11.92	13	18	14.90
(8) Delaware	.50 (1)	.39 (2)	.42	-	-	-	-	-	-
(9) Florida	2.48 (5)	3.74 (19)	3.38	1	7	4.15	2	4	2.88
(11) Hawaii	-	.20 (1)	.14	-	1	.52	-	-	-
(12) Idaho	-	-	-	-	-	-	-	-	-
(14) Indiana	1.49 (3)	1.18 (6)	1.27	-	-	-	2	2	1.92
(17) Kentucky	.50 (1)	.39 (2)	.42	-	-	-	-	-	-
(19) Maine	.99 (2)	.99 (5)	.99	-	4	2.07	1	1	.96
(20) Maryland	1.49 (3)	2.56 (13)	2.25	2	7	4.66	1	5	2.88
(21) Massachusetts	4.95 (10)	7.87 (40)	7.04	-	9	4.66	4	-	1.92
(27) Nebraska	.50 (1)	.79 (4)	.70	-	-	-	-	2	.96
(29) New Hampshire	.50 (1)	.79 (4)	.70	-	1	.52	1	-	.48
(30) New Jersey	23.76 (48)	22.44 (114)	22.82	4	49	27.46	36	35	34.13
(33) No. Carolina	2.48 (5)	1.18 (6)	1.55	1	1	1.04	1	-	.48
(35) Ohio	5.94 (12)	4.92 (25)	5.21	-	1	.52	1	5	2.88
(36) Oklahoma	-	-	-	-	-	-	-	-	-
(38) Pennsylvania	16.34 (33)	15.75 (80)	15.92	1	21	11.40	7	18	12.02
(39) Rhode Island	1.49 (3)	1.18 (6)	1.27	-	4	2.07	-	1	.48

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STATE	M	F	M&F TOTAL	AS	BA	S	MA	OTHER	S
(41) So. Dakota	-	-	-	-	-	-	-	-	-
(44) Utah	-	.20 (1)	.14	-	-	-	-	-	-
(45) Vermont	1.49 (3)	1.38 (7)	1.41	-	1	.52	-	4	1.92
(46) Virginia	.99 (2)	.98 (5)	.99	-	1	.52	-	--	-
(47) Washington	.50 (1)	.79 (4)	.70	-	3	1.55	-	1	.48
(48) West Virginia	-	.59 (3)	.42	-	1	.54	-	-	.48
(49) Wisconsin	1.49 (3)	.39 (2)	.70	-	1	.52	-	-	-
(23) Minnesota	-	.39 (2)	.42	-	-	-	-	-	-
(51) Washington D.C.	-	--	-	-	-	-	-	-	-
(40) So. Carolina	.99 (2)	1.18 (6)	1.13	-	2	1.04	-	-	-
(15) Iowa	.99 (2)	.20 (1)	.42	-	1	.52	-	1	.48

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III

SURVEY OF APPLICANTS
IN PRIMARY SAMPLE

Survey of Applicants in Primary Sample

To conduct the pilot study a decision was made to concentrate on individuals in the Capital City Area. The term itself covers the environs of three smaller cities -- Albany, Schenectady, and Troy.

Applicants who lived in these areas were selected in sequence from a pool of 5,292; 2,208 persons had already been selected out to constitute primary and secondary samples. These applicants represented 16 areas of certification (provisional and permanent certification areas have been paired). Their areas of certification and sex by age range are indicated below.

Each form selected was then renumbered from 1 to 359. In order to select one-third of the individuals every third form was selected for a total of 119. A further examination of the addresses indicated that we had seven forms from applicants living in the following cities/towns: Syracuse (2); Corning (1); New York City (1); Merrick (1); Monroe (1); and Elnora (1).

A cover letter was forwarded with the questionnaire to identify the Teacher Education Developmental Service (TEDS), the nature of this particular aspect of our work, and to request cooperation from the respondents. Specifically, we asked for their cooperation in completing the forms and

in providing criticism of the statements, order, etc.
Individuals selected were requested to complete and return the form with comments seven days after receiving it.

Each form returned was checked against our mailing list. Comments attached to the questionnaire were reviewed and considered for their relevance in completing our task of: (1) improving the questionnaire generally, or (2) changing particular frames. An attempt was made to categorize the comments overall as a positive or negative reaction to the questionnaire, and ten persons grouped accordingly were contacted by telephone for additional information.

Certification Areas of
Capital City Area Respondents

<u>CODE</u>		<u>TYPE</u>	<u>NUMBER</u>
<u>Prov.</u>	<u>Perm.</u>		
1	2	N-6	132
3	4	English	36
5	6	Social Studies	29
7	8	Mathematics	14
9	10	General Science	10
11	12	Biology	5
27	28	Special Education	1
29	30	Speech & Hearing Handicapped	2
31	32	French	7
33	34	German	1
41	42	Russian	3
43	44	Spanish	9
45	46	N-6 and English	7
49	50	N-6 and Mathematics	5
51	52	N-6 and Social Studies	6
53	54	N-6 and French	1
57	58	N-6 and Spanish	1
59	60	Chemistry	2
61	62	Earth Science	2
63	64	Physics	1
65	66	Art	11
67	68	Business Education	1
69	70	Commerce	5
71	72	Health	6
73	74	Health and Physical Education	7
75	76	Home Economics	6
77	78	Industrial Arts	1
79	80	Library Media Specialist	13
81	82	Music	7
83	84	Physical Education	4
85	86	Speech	2
	88	School Administrator & Supervisor	9
	90	School District Administrator	5
91	92	N-6 and Mentally Retarded	7

SEX AND AGE

<u>Year of Birth</u>	<u>Male</u>	<u>Female</u>	<u>TOTAL</u>
1910-15	-	3	3
1916-20	1	1	2
1921-25	-	2	2
1926-30	-	2	2
1931-35	2	9	11
1936-40	6	3	9
1941-45	1	10	11
1946-50	19	31	50
1950-	7	22	29
NUMBER	36	83	119
PERCENT	30.25%	69.75%	100%

Results

(1) Of the 119 questionnaires forwarded to applicants for certification, eighteen (18) were returned as "undeliverable." This amounts to 15.13% of the sample.

(2) Twenty-nine (29) or 24.37% of the applicants returned the completed form with additional comments.

(3) One-third (1/3) of the applicants who completed the forms were contacted by telephone in order to discuss their criticism of the questionnaire. Several respondents provided extended comments regarding their personal reaction to the questionnaire. Generally, they felt that the statements in some instances required rewording. Other comments suggested that statements be regrouped or eliminated.

Telephone conversations with individuals did not elicit any more comments on the questionnaire. These conversations did provide an opportunity for respondents to raise questions about the purpose of the study. In each instance the individual was invited to come in and review the final report at the Teacher Education Developmental Service Library after mid-September.

A slightly revised form of the questionnaire was forwarded to 1,200 persons in the primary sample. Each form returned was checked off against a master list and, after the first

week, each person not returning the form was contacted by postcard. Of the forms mailed 256 were undeliverable as of August 17, 1976. Hence, of the 1,200 individuals who were contacted to complete the questionnaire 944 returns were possible; 29.3% or 204 forms were returned to the Teacher Education Developmental Service for inclusion by August 11, 1976.

Demographic data for the respondents consists of the current status of individuals and their sex. This data is reflected in Tables 14 and 15 and the statement (18) regarding familiarity with competence-based teacher education for the entire group.

When the groups are combined the data reveal that 116 out of 203 respondents are familiar with competence-based teacher education (statement 17). Although the responses vary considering the number of individuals in the respective groups, the data indicate that respondents' source of familiarity was their union's program, teacher talk, professional literature, or occurred at a conference. Without additional information on the number of individuals in this group which completed course work recently, we cannot determine whether information on competence-based teacher education is disseminated; in addition it would be necessary to control for education/non-education courses.

TABLE NUMBER 8

Source of Familiarity and Current Status of RespondentsSTATEMENT ON QUESTIONNAIRE

(18) I have become more familiar with competence-based teacher education as a result of:

	Combined Group	Principal or Assistant Principal	Administrator (In Funded Program)	Teachers	Teacher (Unemployed)	Other
(a) the educational program of my union	88	1	-	-	-	-
(b) college courses I've taken recently	9	-	1	7	1	-
(c) conversations with colleagues	37	-	2	30	-	5
(d) professional journals and newsletters	21	1	3	17	-	-
(e) attending conferences	40	5	4	26	1	4
TOTAL	195	7	10	80	2	9

TABLE NUMBER 9

Composition of Groups By Sex

Sex	Teachers	Teachers (Unemployed)	Principals	Administrators (In Funded Programs)	Others	Total
Male	57	-	6	5	5	73
Female	94	11	2	8	10	125
Unidentifiable	4	-	-	1	-	5
Total	155	11	8	14	15	203

The central purpose of the questionnaire was to determine how much time and money applicants would be willing to spend supporting assessment activity. An examination of the data for the combined group indicates that respondents would opt for between 3-6 days of assessment activities and would be willing to spend from \$150-\$250 (statement 16).

TABLE NUMBER 10

Support of Assessment Activities

(16) If educators, that is, teachers and administrators, were required to complete activities demonstrating proficiency in their roles, I would be willing to spend

<u>TIME</u>				<u>MONEY</u>					
				A	B	C	D		
(a)	3-6 days	74	and pay	(a)	\$150-\$250	64	3	-	-
(b)	4-8 days	3		(b)	\$250-\$350	16	9	-	-
(c)	5-10 days	1		(c)	\$350-\$450	7	5	1	-
(d)	more than 10 days	9		(d)	more than \$450	7	-	1	3

COMBINED GROUP RESPONSE

Data is provided below on statements 1-16 by group: Teachers, Unemployed Teachers, Principals, Administrators (in funded programs), and Others. Portions of the questionnaire were left vacant where applicants could not or were unwilling to respond. A frequency table is provided for each group which follows the format of the questionnaire; it includes a column marked 0 for no response.

- (16) If educators, that is, teachers and administrators, were required to complete activities demonstrating proficiency in their roles, I would be willing to spend

<u>TIME</u>	and	<u>MONEY</u>
(a) 3-6 days		(a) \$150-\$250
(b) 4-8 days		(b) \$250-\$350
(c) 5-10 days		(c) \$350-\$450
(d) more than 10 days		(d) more than \$450

TIME		GROUP	MONEY			
A	61	TEACHERS	A	B	C	D
B	3		49	1	0	0
C	1		10	6	0	0
D	6		7	3	1	0
			3	0	1	3
A	2	UNEMPLOYED TEACHERS	A	B	C	D
B	0		5	0	0	0
C	0		2	1	0	0
D	0		0	0	0	0
			1	0	0	0
A	2	PRINCIPALS	A	B	C	D
B	0		3	0	0	0
C	0		2	0	0	0
D	0		0	0	0	0
			1	0	0	0
A	6	ADMINISTRATORS (FUNDED PROGRAMS)	A	B	C	D
B	0		3	1	0	0
C	0		0	0	0	0
D	2		0	1	0	0
			1	0	0	0
A	3	OTHERS	A	B	C	D
B	0		4	1	0	0
C	0		2	2	0	0
D	1		0	1	0	0
			1	0	0	0
A	74	COMBINED GROUPS	A	B	C	D
B	3		64	3	0	0
C	1		16	9	0	0
D	9		7	5	1	0
			7	0	1	3

KEY FOR ASSESSMENT STUDY	COMBINED GROUP	% OF RESPONSES				
		THIS SEEMS	THIS WOULD BE	IF SUGGESTED BY COLLEAGUES SHOULD		
				1. RESIST	2. IGNORE	3. PROMOTE
PREDICTION						TOTAL
A SINGLE TEACHING CERTIFICATE/ADMINISTRATIVE CERTIFICATE WILL BE VALID IN ALL STATES AND U.S. POSSESSIONS.	1. QUITE UNLIKELY	1. UNDESIRABLE	.05	.00	.00	.05
		2. INCONSEQUENTIAL	.00	.01	.01	.01
		3. DESIRABLE	.01	.01	.18	.20
		TOTAL	.06	.02	.19	.26
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.05	.01	.01	.06
		2. INCONSEQUENTIAL	.00	.01	.01	.02
		3. DESIRABLE	.00	.01	.46	.47
		TOTAL	.05	.03	.47	.55
	3. QUITE LIKELY	1. UNDESIRABLE	.01	.00	.01	.01
		2. INCONSEQUENTIAL	.00	.00	.00	.00
		3. DESIRABLE	.00	.01	.16	.17
		TOTAL	.01	.01	.17	.18
3. PROCEDURES TO VERIFY THE QUALITY PERFORMANCE ON THE JOB WILL BE USED AS A BASIS FOR RE-ISSUING A TEACHING/ADMINISTRATIVE CERTIFICATE.	1. QUITE UNLIKELY	1. UNDESIRABLE	.07	.00	.00	.07
		2. INCONSEQUENTIAL	.01	.02	.03	.03
		3. DESIRABLE	.03	.00	.07	.10
		TOTAL	.11	.02	.07	.19
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.04	.00	.01	.05
		2. INCONSEQUENTIAL	.01	.02	.02	.04
		3. DESIRABLE	.07	.02	.33	.41
		TOTAL	.12	.04	.35	.50
	3. QUITE LIKELY	1. UNDESIRABLE	.03	.00	.00	.03
		2. INCONSEQUENTIAL	.01	.00	.01	.01
		3. DESIRABLE	.01	.00	.20	.21
		TOTAL	.04	.00	.20	.24
3. STATEMENTS SPECIFYING PERFORMANCE OF AN EDUCATOR WILL BE PREFERRED OVER GRADES AND COMPLETION OF ADVANCED DEGREES.	1. QUITE UNLIKELY	1. UNDESIRABLE	.07	.01	.01	.08
		2. INCONSEQUENTIAL	.01	.04	.00	.04
		3. DESIRABLE	.03	.01	.17	.21
		TOTAL	.10	.05	.18	.33
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.05	.01	.01	.07
		2. INCONSEQUENTIAL	.02	.04	.02	.07
		3. DESIRABLE	.03	.03	.28	.34
		TOTAL	.09	.08	.30	.46
	3. QUITE LIKELY	1. UNDESIRABLE	.03	.01	.00	.03
		2. INCONSEQUENTIAL	.00	.00	.00	.00
		3. DESIRABLE	.01	.01	.15	.16
		TOTAL	.03	.01	.15	.19

SURVEY FOR ASSESSMENT STUDY

COMBINED GROUP

% OF RESPONSES

PREDICTION	THIS SEEMS:	THIS WOULD BE:	IF SUGGESTED BY COLLEAGUES SHOULD:			TOTAL
			1. RESIST	2. IGNORE	3. PROMOTE	
(14) APPLICANTS FOR CERTIFICATION WILL BE RESPONSIBLE FOR PAYING EXPENSES AND A REASONABLE FEE TO EXAMINERS FOR CONDUCTING ASSESSMENT PROCESSES.	1. QUITE UNLIKELY	1. UNDESIRABLE	.28	.02	.00	.30
		2. INCONSEQUENTIAL	.01	.01	.00	.02
		3. DESIRABLE	.01	.00	.02	.02
		TOTAL	.29	.03	.02	.33
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.13	.01	.00	.14
		2. INCONSEQUENTIAL	.02	.04	.01	.07
		3. DESIRABLE	.01	.01	.06	.08
		TOTAL	.15	.06	.07	.28
	3. QUITE LIKELY	1. UNDESIRABLE	.18	.01	.00	.19
		2. INCONSEQUENTIAL	.03	.06	.01	.09
		3. DESIRABLE	.02	.00	.09	.11
		TOTAL	.22	.07	.10	.39
(15) POTENTIAL COSTS INVOLVED IN DEVELOPING REGULATIONS EMPHASIZING PERFORMANCE WILL HAVE TO BE SHARED BETWEEN THE APPLICANTS AND INSTITUTIONS RESPONSIBLE FOR GOVERNING THE PROCESS.	1. QUITE UNLIKELY	1. UNDESIRABLE	.28	.02	.00	.30
		2. INCONSEQUENTIAL	.00	.02	.00	.02
		3. DESIRABLE	.01	.00	.04	.04
		TOTAL	.29	.03	.04	.35
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.14	.01	.00	.14
		2. INCONSEQUENTIAL	.00	.04	.01	.05
		3. DESIRABLE	.02	.02	.17	.21
		TOTAL	.15	.06	.19	.40
	3. QUITE LIKELY	1. UNDESIRABLE	.07	.01	.00	.07
		2. INCONSEQUENTIAL	.01	.01	.01	.02
		3. DESIRABLE	.01	.01	.13	.15
		TOTAL	.08	.03	.14	.25
(16) CERTIFICATES ENABLING EDUCATORS TO WORK IN ALL STATES AND U.S. POSSESSIONS WILL ENCOURAGE MOBILITY.	1. QUITE UNLIKELY	1. UNDESIRABLE	.01	.00	.00	.01
		2. INCONSEQUENTIAL	.00	.05	.02	.06
		3. DESIRABLE	.00	.00	.03	.03
		TOTAL	.01	.05	.05	.11
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.01	.00	.00	.01
		2. INCONSEQUENTIAL	.01	.10	.02	.12
		3. DESIRABLE	.00	.01	.14	.14
		TOTAL	.02	.13	.16	.27
	3. QUITE LIKELY	1. UNDESIRABLE	.03	.00	.00	.03
		2. INCONSEQUENTIAL	.01	.04	.03	.07
		3. DESIRABLE	.01	.02	.50	.52
		TOTAL	.04	.05	.53	.62

SURVEY FOR ASSESSMENT STUDY

COMBINED GROUP

1 OF RESPONSES

PREDICTION	THIS SEEMS:	THIS WOULD BE:	IF SUGGESTED MY COLLEAGUES SHOULD:			
			1. RESIST	2. IGNORE	3. PROMOTE	TOTAL
(77) ADMINISTRATORS AND TEACHERS WILL HAVE TO COMPLETE A DEFINED AMOUNT OF TIME DEVOTED TO EXTENSIVE ACTIVITIES DELINEATED IN ASSESSMENT PROCESSES TO QUALIFY FOR THEIR INITIAL CERTIFICATION.	1. QUITE UNLIKELY	1. UNDESIRABLE	.08	.00	.00	.08
		2. INCONSEQUENTIAL	.01	.01	.00	.02
		3. DESIRABLE	.01	.00	.01	.02
		TOTAL	.09	.01	.01	.11
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.05	.00	.00	.05
		2. INCONSEQUENTIAL	.01	.07	.00	.08
		3. DESIRABLE	.01	.00	.21	.22
		TOTAL	.07	.07	.21	.35
	3. QUITE LIKELY	1. UNDESIRABLE	.06	.01	.01	.07
		2. INCONSEQUENTIAL	.01	.02	.02	.05
		3. DESIRABLE	.01	.01	.40	.42
		TOTAL	.08	.03	.42	.54
(8) EDUCATORS WILL HAVE TO SPEND A DEFINED AMOUNT OF TIME TO COMPLETE ACTIVITIES ASSOCIATED WITH THE ISSUANCE OF THE INITIAL CERTIFICATE.	1. QUITE UNLIKELY	1. UNDESIRABLE	.02	.00	.00	.02
		2. INCONSEQUENTIAL	.01	.01	.00	.01
		3. DESIRABLE	.00	.01	.01	.01
		TOTAL	.03	.01	.01	.04
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.02	.00	.00	.02
		2. INCONSEQUENTIAL	.01	.07	.00	.07
		3. DESIRABLE	.00	.00	.16	.16
		TOTAL	.03	.07	.16	.26
	3. QUITE LIKELY	1. UNDESIRABLE	.03	.01	.00	.03
		2. INCONSEQUENTIAL	.01	.04	.02	.06
		3. DESIRABLE	.03	.02	.57	.61
		TOTAL	.06	.06	.58	.70
(9) LIKE THE PERFORMANCE-BASED TEACHER EDUCATION PROGRAM, INSTRUCTORS OF IN-SERVICE COURSES WILL HAVE TO STATE PUBLICLY THEIR OBJECTIVES AS WELL AS THE MEANS FOR ATTAINING THEM.	1. QUITE UNLIKELY	1. UNDESIRABLE	.02	.00	.00	.02
		2. INCONSEQUENTIAL	.01	.01	.00	.01
		3. DESIRABLE	.01	.00	.04	.04
		TOTAL	.03	.01	.04	.07
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.01	.01	.00	.01
		2. INCONSEQUENTIAL	.01	.04	.00	.04
		3. DESIRABLE	.01	.01	.20	.21
		TOTAL	.02	.05	.20	.26
	3. QUITE LIKELY	1. UNDESIRABLE	.01	.00	.00	.01
		2. INCONSEQUENTIAL	.01	.01	.01	.03
		3. DESIRABLE	.00	.01	.63	.64
		TOTAL	.01	.02	.64	.67

INVESTIGATION FOR ASSESSMENT STUDY

COMBINED GROUP

% OF RESPONSES

PREDICTION	THIS SEEMS:	THIS WOULD BE:	IF SUGGESTED BY COLLEAGUES SHOULD:			
			1. RESIST	2. IGNORE	3. PROMOTE	TOTAL
OF IN-SERVICE COURSES WILL HAVE EXIBLE ARRANGEMENTS TO ENABLE EDUCA- RS TO COMPLETE THEM BY DEMONSTRATING MPETENCE THROUGH LABORATORY PERIENCES.	1. QUITE UNLIKELY	1. UNDESIRABLE	.01	.00	.00	.01
		2. INCONSEQUENTIAL	.01	.02	.01	.03
		3. DESIRABLE	.00	.00	.01	.01
		TOTAL	.02	.02	.02	.05
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.02	.01	.00	.03
		2. INCONSEQUENTIAL	.00	.04	.01	.05
		3. DESIRABLE	.00	.01	.26	.27
		TOTAL	.02	.06	.26	.34
	3. QUITE LIKELY	1. UNDESIRABLE	.01	.01	.00	.02
		2. INCONSEQUENTIAL	.00	.00	.01	.01
		3. DESIRABLE	.01	.01	.58	.59
		TOTAL	.02	.01	.58	.61
12) DECISION-MAKING POWER TO CONDUCT ASSESSMENT PROCESSES FOR CERTIFICATION ILL BE EQUALLY SHARED BY TEACHERS, ADMINISTRATORS, BARGAINING UNITS, LAY ITIZENS, AND UNIVERSITY PERSONEL.	1. QUITE UNLIKELY	1. UNDESIRABLE	.19	.00	.00	.19
		2. INCONSEQUENTIAL	.00	.01	.00	.01
		3. DESIRABLE	.01	.00	.14	.15
		TOTAL	.20	.01	.14	.35
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.09	.00	.00	.09
		2. INCONSEQUENTIAL	.01	.02	.01	.03
		3. DESIRABLE	.02	.00	.19	.21
		TOTAL	.11	.02	.20	.32
	3. QUITE LIKELY	1. UNDESIRABLE	.04	.00	.00	.04
		2. INCONSEQUENTIAL	.00	.00	.00	.00
		3. DESIRABLE	.01	.00	.28	.28
		TOTAL	.05	.00	.28	.32
12) TEACHERS AND OTHER EDUCATORS WILL ETERMINE THE QUALIFICATIONS OF INDIV- IDUALS WHO WISH TO CONTINUE FUNCTIONING ITHIN SCHOOLS.	1. QUITE UNLIKELY	1. UNDESIRABLE	.09	.00	.00	.09
		2. INCONSEQUENTIAL	.00	.01	.01	.02
		3. DESIRABLE	.01	.00	.12	.13
		TOTAL	.10	.01	.13	.24
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.08	.00	.01	.09
		2. INCONSEQUENTIAL	.01	.06	.00	.06
		3. DESIRABLE	.02	.00	.24	.26
		TOTAL	.11	.06	.24	.41
	3. QUITE LIKELY	1. UNDESIRABLE	.02	.00	.00	.02
		2. INCONSEQUENTIAL	.01	.01	.00	.01
		3. DESIRABLE	.01	.00	.32	.33
		TOTAL	.03	.01	.32	.36

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SURVEY FOR ASSESSMENT STUDY	COMBINED GROUP	1 OF RESPONSES				
		THIS SEEMS:	THIS WOULD BE:	IF SUGGESTED BY COLLEAGUES SHOULD:		
				1. RESIST	2. IGNORE	3. PROMOTE
PREDICTION						TOTAL
137 THE MEANS FOR ASCERTAINING ACHIEVEMENT OF PUBLICLY STATED OBJECTIVES FOR IN-SERVICE COURSES AND TEACHER EDUCATION PROGRAMS WILL BE NEGOTIABLE BETWEEN APPLICANT AND EXAMINER.	1. QUITE UNLIKELY	1. UNDESIRABLE	.07	.01	.01	.08
		2. INCONSEQUENTIAL	.01	.03	.01	.04
		3. DESIRABLE	.00	.00	.05	.05
		TOTAL	.08	.03	.07	.18
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.07	.01	.00	.08
		2. INCONSEQUENTIAL	.01	.05	.00	.06
		3. DESIRABLE	.01	.01	.35	.36
		TOTAL	.08	.07	.35	.50
	3. QUITE LIKELY	1. UNDESIRABLE	.00	.00	.00	.00
		2. INCONSEQUENTIAL	.00	.02	.01	.02
		3. DESIRABLE	.00	.01	.30	.30
		TOTAL	.00	.02	.30	.32
124 PUBLICLY STATED OBJECTIVES FOR IN- SERVICE COURSES AND TEACHER EDUCATION COURSES WILL CHANGE, BUT THIS WILL OCCUR ONLY AFTER AGREEMENT OF CRITERIA IS JOINTLY ESTABLISHED BY A COMMITTEE OF EDUCATORS.	1. QUITE UNLIKELY	1. UNDESIRABLE	.02	.00	.00	.02
		2. INCONSEQUENTIAL	.00	.01	.01	.01
		3. DESIRABLE	.00	.00	.10	.10
		TOTAL	.02	.01	.10	.12
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.02	.00	.00	.02
		2. INCONSEQUENTIAL	.01	.07	.02	.10
		3. DESIRABLE	.01	.01	.28	.29
		TOTAL	.03	.08	.30	.41
	3. QUITE LIKELY	1. UNDESIRABLE	.01	.00	.00	.01
		2. INCONSEQUENTIAL	.00	.02	.00	.02
		3. DESIRABLE	.01	.01	.43	.44
		TOTAL	.01	.03	.43	.47
115 STUDIES ON THE SATISFACTION OF EDUCATORS WITH THEIR DUTIES WILL BE NECESSARY IF MORE EXTENSIVE AND REGULAR EXAMINATION IS REQUIRED.	1. QUITE UNLIKELY	1. UNDESIRABLE	.05	.00	.00	.05
		2. INCONSEQUENTIAL	.01	.01	.00	.01
		3. DESIRABLE	.00	.01	.05	.06
		TOTAL	.06	.01	.05	.12
	2. REMOTELY POSSIBLE	1. UNDESIRABLE	.00	.00	.00	.00
		2. INCONSEQUENTIAL	.01	.07	.00	.08
		3. DESIRABLE	.00	.00	.16	.16
		TOTAL	.01	.07	.16	.24
	3. QUITE LIKELY	1. UNDESIRABLE	.00	.00	.00	.00
		2. INCONSEQUENTIAL	.01	.02	.01	.03
		3. DESIRABLE	.01	.01	.55	.57
		TOTAL	.02	.02	.56	.60

FREQUENCY TABLE

Combined Group

	This seems:	This would be:	If this is suggested, my colleagues should:
1) 0. No Response	4	1	7
1.	52	27	22
2.	110	6	11
3.	37	169	163
2) 0. No Response	5	5	13
1.	41	28	50
2.	99	15	10
3.	58	155	130
3) 0. No Response	3	0	11
1.	66	36	44
2.	97	24	28
3.	37	143	120
4) 0. No Response	1	6	11
1.	64	120	127
2.	58	35	29
3.	80	42	36
5) 0. No Response	4	6	13
1.	70	100	100
2.	79	18	22
3.	50	79	68
6) 0. No Response	2	4	15
1.	23	9	12
2.	57	54	38
3.	121	136	138
7) 0. No Response	6	6	14
1.	23	40	47
2.	69	29	21
3.	105	128	121
8) 0. No Response	8	8	13
1.	9	16	22
2.	51	27	26
3.	135	152	142
9) 0. No Response	6	8	12
1.	16	6	10
2.	52	17	13
3.	129	172	168
10) 0. No Response	9	8	16
1.	12	10	10
2.	67	18	16
3.	115	168	161
11) 0. No Response	5	6	10
1.	69	65	71
2.	67	6	4
3.	62	126	118
12) 0. No Response	5	7	10
1.	47	38	47
2.	81	17	14
3.	70	141	132

		This seems:	This would be:	If this is suggested, my colleagues should:
13)	0. No Response	10	10	12
	1.	34	31	31
	2.	97	23	23
	3.	62	139	137
14)	0. No Response	13	14	24
	1.	25	8	11
	2.	76	26	21
	3.	87	155	147
15)	0. No Response	18	17	26
	1.	29	10	15
	2.	47	26	19
	3.	109	150	143

The combined group's responses to the questionnaire are reprinted on pages 182-186. The fifteen predictions to which they were asked to respond were designed to elicit opinions concerning a wide range of statements concerning teacher education and certification. Statements 4, 5, 7, 10, 11 and 14 are examined more closely in the following pages because the respondents' opinions were most pronounced in these areas.

STATEMENT 4: Applicants for certification will be responsible for paying expenses and a reasonable fee to examiners for conducting assessment processes.

		would be			
		1	2	3	T
seems	1	.30	.02	.02	.33
	2	.14	.07	.08	.28
	3	.18	.09	.11	.33
	T	.62	.18	.21	

The data in the above table show that in respect to paying an applicant's fee to examiners conducting assessment for certification, 62 percent of the respondents were of the opinion that this situation would be "undesirable." Approximately one-third of the respondents, however, were of the opinion that this situation is "quite likely" to come about. In general, the respondents did not view favorably the idea of having to pay an examiner's fee and generally were too optimistic that the situation would occur.

STATEMENT 5: Potential costs involved in developing regulations emphasizing performance will have to be shared between the applicants and institutions responsible for governing the process.

		would be			
		1	2	3	T
seems	1	.30	.02	.04	.35
	2	.14	.05	.21	.40
	3	.07	.02	.15	.25
	T	.51	.09	.40	

The data in the above table clearly show that 51 percent of the respondents considered the shared cost between applicant and institution concerning those costs involved in developing regulations and performance as being "undesirable", while 40 percent considered this "desirable." In respect to the possibility of this situation coming about, 35 percent thought that it was "quite unlikely" to happen while 25 percent thought that it was "quite likely" to happen. The largest group, 40 percent, thought that it was a "remote" possibility that the situation would happen. In general, while 51 percent of the respondents considered shared cost as "undesirable", they felt that it was not very likely to come about.

STATEMENT 7: Administrators and teachers will have to complete a defined amount of time devoted to extensive activities delineated in assessment processes to qualify for their initial certification.

		would be			
		1	2	3	T
seems	1	.08	.02	.02	.11
	2	.05	.08	.22	.35
	3	.07	.05	.42	.54
	T	.20	.15	.66	

The data in the above table show that in respect to lengthy assessment procedures prior to initial certification, the majority of respondents, 54 percent, considered this as being "quite likely" to occur. In support of this position, 66 percent of the respondents considered this as "desirable." In general, the respondents clearly declared their support for lengthy assessment procedures before initial certification and also consider that this situation is quite likely to come about.

STATEMENT 10: In-service courses will have flexible arrangements to enable educators to complete them by demonstrating competence through laboratory experiences.

		would be			
		1	2	3	T
seems	1	.01	.03	.01	.05
	2	.03	.05	.27	.34
	3	.02	.01	.59	.61
	T	.06	.09	.87	

The data in the above table clearly show that 87 percent of the respondents considered flexible arrangements of in-service courses so that completion of them can be demonstrated by laboratory experiences as being "desirable." The majority of the respondents, 61 percent, were of the opinion that this situation was "quite likely" to happen.

STATEMENT 11: Decision-making power to conduct assessment processes for certification will be equally shared by teachers, administrators, bargaining units, lay citizens, and university personnel.

		would be			
		1	2	3	T
seems	1	.19	.01	.15	.35
	2	.09	.03	.21	.32
	3	.04	.00	.28	.32
	T	.32	.04	.64	

The data in the above table clearly show that 64 percent of the respondents considered it "quite likely" to happen that the assessment process for certification would be equally shared by teachers, administrators, bargaining units, citizens, and university personnel. On the other hand, the respondents were almost equally divided among the three responses concerning whether they thought this situation was desirable. The data show that 35 percent considered this "undesirable", 32 percent considered this "inconsequential", and only 32 percent considered this "desirable." In general, while the respondents seem to think that this situation is likely to come about, they are equally divided in their opinions concerning the desirability of such a situation.

STATEMENT 14: Publicly stated objectives for in-service courses and teacher education courses will change, but this will occur only after agreement of criteria is jointly established by a committee of educators.

		would be			
		1	2	3	T
seems	1	.02	.01	.10	.12
	2	.02	.10	.29	.41
	3	.01	.02	.44	.47
	T	.05	.03	.83	

The data in the above table show that shared decision-making concerning in-service courses is highly desirable in the opinion of the respondents. Eighty-three (83) percent of the respondents supported as "desirable" the inference of the statement. However, in respect to the possibility of such a situation coming about, the respondents seemed to be equally divided between "quite likely" and "inconsequential", with 47 and 41 percent respectively. In general, the respondents supported the idea of jointly establishing criteria and objectives for in-service courses; but it seems to be questionable that it is important that such a condition come about.

Data is available upon request for descriptor responses in the following categories: Teachers, Unemployed Teachers, Principals, Administrators of Funded Programs, and Others. In general, any one descriptor group's responses do not differ significantly from the combined responses or any descriptor group comparisons.

Recommendations and Summary

A metaphysical poet has coined an interesting opening line of a poem that doubles as the title of the poem. "Had we but world enough and time" probably summarizes a substantial portion of our intentions when we started working on this project in September 1975. In our own "hot house" or offices we have conjured up numerous possibilities for analyzing the data, refining the study, and extending the data base with additional efforts. Quite naturally the notion that one can go back in time, equipped with different skills to "seize the day" is harmless nostalgia.

This glance backwards will have served its purpose if one or more of the problems below is solved.

(1) Why were applicants motivated to seek employment in New York? This particular sub-sample of the population could interviewed, surveyed, or compared against sub-samples selected from other years. The specific list of individuals could be obtained from the Bureau of Education Data Systems at the State Education Department. Prior approval of any study or follow-up activity must be granted by the Department because representatives of divisions are obligated to honor "the confidentiality of information" regulation.

(2) Possibly a statement or small brochure explaining the nature of the Compact State relationships could be drafted

and forwarded to individuals applying for certification. We did not have an opportunity to determine how individuals applying for certification acquired this information, or even if they know the Compact exists. At least one college in the northeast has urged its graduates to contact them for information, etc. regarding the Compact.

(3) A special study could be made of individuals completing bachelor's degrees with teacher education sequences when they are twenty-five years of age and older (or over thirty years old).

(4) The procedures used in this study could be refined to conduct a similar study at any State Education Department in the country. A computer programmer could work with designated staff members in any project to synthesize types of data required to complete forms for certification in the United States and to develop the form and other coding procedures to give State Education Departments the information they want.

(5) Discussions could be held to explore the usefulness of replicating the Supply and Demand Study completed by the Michigan State Education Department.

(6) As soon as procedures and processes are devised to assess an applicant's qualifications to commence teaching the number of legal cases contesting such decisions are likely

to increase. The usefulness of instruments, tests, etc. and the problems associated with them have been covered to some extent in the Griggs vs. Duke Power Company case and many others.

At the moment there is no special reason for lawyers to be familiar with competence-based teacher education (CBTE). But in the near future educators advocating movement toward CBTE may need to get advice from lawyers more knowledgeable about educational matters. Are there any Teacher Corps graduates who are lawyers? Would any of them be interested in reviewing case law covering legal problems likely to arise if assessment procedures are implemented?

And last, an infinite number of opportunities exist to survey sub-samples of populations. Most university libraries have telephone directories for the major cities of its state; these could be used to locate the telephone numbers of individuals living in standard metropolitan statistical areas (SMSAs).'

Two major goals were conceived for conducting this study. The first goal encompassed a data based effort to describe the characteristics of individuals applying for certification in New York State through the individual review process, the second goal necessitated completion of a survey to determine how much time and money applicants would be willing to spend

if a projected set of activities governed initial certification for educators. The third chapter contains numerous tables to answer the study questions as well as the results of the survey.

The information available in this document may be useful to numerous professional associations concerned about teacher education, certification requirements, mobility of educators, or competence-based teacher education. We hope that such groups will use this document and provide commentary where time and purpose can be fused.

There is no easy way to synthesize data from so many charts in a capsule for recollection of the major characteristics of individuals in both the primary and secondary samples. No one is really going to remember the bulk of details, percentages, and so on enumerated on the tables. We have therefore decided to telescope the most essential items, the purposes of the study and the results by restating the essence of the answers to the questions regarding the study (16) and the survey (2).

Sex

Both the primary and secondary samples were predominantly female. Women constituted 68.5% of the population in the primary sample and 69.2% in the secondary sample. Of the total of 2,208 applicants in both samples, females accounted for 1,517 of them.

Certification Areas

For all practical purposes one could have predicted that women would represent the overwhelming percentage of applicants in both samples. An examination of the data revealed that they outnumbered men in almost every certification area except Health and Physical Education, School Administration and Supervision, and School District Administration. Ninety certificates, i.e., provisional and permanent, are available in all areas except School Administration and Supervision and School District Administration; women outnumbered men in nearly all of these certificate areas.

A hypothetical unit of Elementary School Personnel was constructed as Tables 4f and 4g. Certificates issued for N-6, N-6 and a content area (i.e., English), art and music, physical education, mentally retarded, and administration and supervision were grouped. Together women accounted for 77.2% (688) of the certificates issued to individuals in the primary sample (N=1,500) and 74.4% (309) of those issued to persons in the secondary sample (N=708). When the figures are combined for men and women 891 certificates were issued to persons from the primary sample in this hypothetical unit; in the secondary sample a total of 415 were issued. In areas covering administration and supervision 38 women were granted certificates, while 62 were granted to men. The picture is more dismal in the secondary sample: 5 certificates were issued to women, 32 to men.

Age

A practical decision was made to divide seventy-two in half. This enabled us to use 1938 as a base year to determine how many applicants fell into top and lower brackets for age. When individuals in the primary sample (N=1,500) are considered 1,226 or 81.7% of them were thirty-eight (38) years of age or less at the time of application; 840 or 68.5% of them were female. The figure was slightly higher for the secondary sample. Individuals less than thirty-eight years of age represented 87.1% or 617 persons in the sample (N=708). Women formed 61.8% (438) of the applicants in the group.

Locus of Education, Contiguous and Compact States

A very high percentage of applicants in both samples have completed degrees or course work in New York State. In each instance where data is for the frequency of education completed by state and overlapped with specific degrees was completed within the State. Otherwise the next highest percentage of education are rather consistently reported by states contiguous to New York (New Jersey, Pennsylvania, Connecticut, Massachusetts, and Vermont). Very few applicants applied for certification from states west of the Mississippi River. Almost all of the applicants in the sample come from states involved in the Compact agreement which generally ensures reciprocal arrangements for certification nationally.

Out-of-Staters Employed

The Bureau of Education Data Systems of the New York State Education Department completed an analysis to determine how many non-residents at the time of application for certification have actually become employed in the State. We submitted a total of 868 names and/or social security numbers to them for verification. When these names/numbers were checked against their files, we were notified in writing that 154 or 6.9% of the total sample had gained employment; when an adjustment is made for the possibility of error, the percentage for out-of-staters employed would vary from 15 to 18% of all non-residents in the population.

APPENDIX

<u>Pages</u>	<u>Recording Package</u>
1-2	Description of Items for Recording
3-4	Item Recording Instructions
5-6	Recording Form
7	Certificate Coding
8-9	State Coding
10	Credit Coding
11-13	Degree Coding
14	Job Category Coding
15-21	Level of Experience Coding
22-24	Subject Coding
25	List of Variables
26-27	Table Number 1, <u>Identification of Errors</u> <u>in Primary and Secondary Samples</u>
28-32	Table Number 2, <u>Analysis of Errors in</u> <u>Primary and Secondary Samples</u>
33	Table Number 3, <u>Identification of Cards</u> <u>Corrected</u>

Description of Items for Recording

<u>ITEM</u>	<u>COLUMN</u>	<u>DESCRIPTION</u>
1	1-9	Social Security No.
2	10-11	State
3	12-13	Certification
4	14	Multiple
5	15	Sex
6	16-17	Year of Birth
7	18-20	Institution
8	21-22	State
9	23	Credits
10	24-25	Degree
11	26-27	Date
12-16	28-37	Same as 7-11
17-21	38-47	"
22-26	48-57	"
27-31	58-67	"
32-36	68-77	"
37-41	78-87	"
42	88-89	State - Certification
43	90-91	Effective Date
44	92-93	Expiration Date
45	94-95	Subjects/Areas
46-49	96-103	
50-53	104-111	
54-57	112-119	
58	120-121	State of Experience
59	122-123	Subjects

<u>ITEM</u>	<u>COLUMN</u>	<u>DESCRIPTION</u>
60	124-128	Levels (K-12)
61	129-132	Years
62-65	133-145	
66-69	146-158	
70-73	159-171	
74	172	Previous Application
75	173-178	Date of Application

ITEM RECORDING INSTRUCTIONS

1. as written
2. coded
3. coded
4. Yes or No circled
5. M or F circled
6. as written
7. coded
8. coded
9. coded
10. coded
- 12-16. same as 7-11
- 17-21. " " "
- 22-26. " " "
- 27-31. " " "
- 32-36. " " "
- 37-41. " " "
42. coded
43. as written
44. as written
45. as written
- 46-49. same as 42-45
- 50-53. " " "
- 54-57. " " "
58. coded
59. as written

ITEM RECORDING INSTRUCTIONS (cont'd.)

- 60. as written
- 61. as written
- 62-65. same as 58-61
- 66-69. " " "
- 70-73. " " "
- 74. Yes or No circled
- 75. as written

1

3

Cert.

Name

Address

Date Application Received

Date Certification Granted

1

2

3

Y

N

4

M

F

5

6

Institution

State Credits

Degree Date

			7			8		9			10			11
			12			13		14			15			16
			17			18		19			20			21
			22			23		24			25			26
			27			28		29			30			31
			32			33		34			35			36
			37			38		39			40			41

TEACHING CERTIFICATES

Description

State

Eff.
Date

Exp.
Date

Subjects/Areas

		42		43		44			45
		46		47		48			49
		50		51		52			53
		54		55		56			57

TEACHING/ADMINISTRATIVE/SUPERVISORY EXPERIENCE

Community	State	Subjects	Levels (K-12)	Years
_____	☐ ☐ 58	_____	☐ ☐ 59 _____ ☐ ☐ ☐ ☐ ☐ ☐ 60	☐ ☐ - ☐ ☐ 61
_____	☐ ☐ 62	_____	☐ ☐ 63 _____ ☐ ☐ ☐ ☐ ☐ ☐ 64	☐ ☐ - ☐ ☐ 65
_____	☐ ☐ 66	_____	☐ ☐ 67 _____ ☐ ☐ ☐ ☐ ☐ ☐ 68	☐ ☐ - ☐ ☐ 69
_____	☐ ☐ 70	_____	☐ ☐ 71 _____ ☐ ☐ ☐ ☐ ☐ ☐ 72	☐ ☐ - ☐ ☐ 73

Y M ☐ 74

☐☐-☐☐-☐☐ 75

Coder's
Initials

CERTIFICATE CODING (Item 3)

<u>Prov-Perm</u>			<u>HANDICAPPED</u>			<u>LANGUAGES</u>			<u>N-9</u>			<u>SCIENCES</u>			<u>OTHERS</u>		
1	2	N-6	15	16	Emotionally Handicapped	31	32	French	45	46	N-6 and English	59	60	Chemistry	65	66	Art
3	4	English	17	18	Learning Disabled	33	34	German	47	48	N-6 and General Science	61	62	Earth Science	67	68	Business Education
5	6	Social Studies	19	20	P.W. - Blind	35	36	Hebrew	49	50	N-6 and Mathematics	63	64	Physics	69	70	Commerce
7	8	Mathematics	21	22	P.W.-Blind & Partially Seeing	37	38	Italian	51	52	N-6 and Social Studies				71	72	Health
9	10	General Science	23	24	P.W.-Deaf	39	40	Latin	53	54	N-6 and French				73	74	Health and Physical Education
11	12	Biology	25	26	P.W. - Orthopedic	41	42	Russian	55	56	N-6 and Latin				75	76	Home Economics
13	14	Mentally Retarded	27	28	Special Education	43	44	Spanish	57	58	N-6 and Spanish				77	78	Industrial Arts
			29	30	Speech & Hearing Handicapped										79	80	Library Media Specialist
															81	82	Music
															83	84	Physical Education
															85	86	Speech
															88		School Administrator & Supervisor
															90		School District Administrator
			91	92	N-6 and Mentally Retarded												

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STATE CODING

(Items 2, 8, 13, 18, 23, 28, 33, 38, 42, 46, 50, 54, 58, 62, 66, 70)

United States

1 Alabama
2 Alaska
3 Arizona
4 Arkansas
5 California
6 Colorado
7 Connecticut
8 Delaware
9 Florida
10 Georgia
11 Hawaii
12 Idaho
13 Illinois
14 Indiana
15 Iowa
16 Kansas
17 Kentucky

18 Louisiana
19 Maine
20 Maryland
21 Massachusetts
22 Michigan
23 Minnesota
24 Mississippi
25 Missouri
26 Montana
27 Nebraska
28 Nevada
29 New Hampshire
30 New Jersey
31 New Mexico
32 New York
33 North Carolina
34 North Dakota

35 Ohio
36 Oklahoma
37 Oregon
38 Pennsylvania
39 Rhode Island
40 South Carolina
41 South Dakota
42 Tennessee
43 Texas
44 Utah
45 Vermont
46 Virginia
47 Washington
48 West Virginia
49 Wisconsin
50 Wyoming
51 District of
Columbia

Other U.S.

51 District of Columbia
52 Guam
53 Puerto Rico
54 Other (specify)

1
00
1

STATE CODING (cont'd.)

Canada

55 Alberta
56 British Columbia
57 New Brunswick
58 Newfoundland
59 Northwest Territory
60 Nova Scotia
61 Ontario
62 Prince Edward Island
63 Quebec
64 Saskatchewan

Europe

65 Specify

Latin America

66 Specify

Other

67 Africa
68 Asia
69 Australia
70 Greenland
71 Mid-East

CREDIT CODING (Items 9, 14, 19, 24, 29, 34, 39)

- 1 1-6
- 2 5-15
- 3 16-30
- 4 31-45
- 5 46-60
- 6 61-75
- 7 76-100
- 8 101-125
- 9 126 +

DEGREE CODING (Items 10, 15, 20, 25, 30, 35, 40)

ASSOCIATE & BACHELOR

1 None
 2 AA
 3 AS
 4 Other A
 5 BA
 6 BFA
 7 BS
 8 BS Ed
 9 Other B

MASTER

10 MA
 11 MAT
 12 MPA
 13 MLS
 14 MS
 15 MSED
 16 MSW
 17 Other M

MASTER +

18 RN
 19 CAS (Certificate of
 Advanced Study)
 20 UC (University
 Certificate)
 21 Specialist
 22 Other post-M

DOCTORATE

23 Ed. D.
 24 Ph. D.
 25 Other D.
 26 Other
 dip/degree
 (specify)

DEGREE CODING

01 None	20 UC (University Certificate)	38 MSE	57 BS ISS
02 AA	21 Specialist	39 MRE	58 M Mus
03 AS	22 Other Post-M	40 LLD	59 MSLS
04 Other A	23 Ed. D.	41 MALS	60 LLB
05 BA	24 Ph. D.	42 BM	61 MAED
06 BFA	25 Other D.	43 BBE	62 BM Mus Ed
07 BS	26 Other dip/degree (specify)	44 MTS	63 BD
08 BS Ed	27 AAS	45 ITTP	64 DPA
09 Other B	28 B Ed.	46 MM	65 BS Ed
10 MA	29 BBA	47 MSNS	66 MME
11 MAT	30 B Mus.	48 BEE	67 CPA
12 MFA	31 B. Sc.	49 M Ec. Ed.	68 MSHE
13 MLS	32 MBA	50 MST	69 ADI
14 MS	33 M Ed.	51 BAE	70 ABD
15 MSED	34 M Ph.	52 ABS	71 B Arch.
16 MSW	35 DPA	53 BS ME or BS Mus Ed	72 MPA
17 Other M	36 JD	54 BME	73 MMus Ed
18 RN	37 BSE	55 AMusD	74 6th Year
19 CAS (Certificate of Advanced Study)		56 MSME	75 BRE

DEGREE CODING (cont'd.)

76 Spec. in Ed.

77 STB

78 MMA

79 Master of Law

80 BA Ed.

81 MS Sp. Ed.

82 BEME

83 PHB

84 CAGS

85 M Div.

86 BS Mus

87 BS Sp. Ed.

88 BSBE

89 MA Sp. Ed.

90 ASS

91 BS El. Ed.

92 MSTM

93 BS B Adm

94 MA El. Ed.

95 Sch. A+S

96 MSAE

97 DDS

01 teacher (<u>not</u> resource)	16 dean	33 assistant superintendent	51 attendance teacher
02 head teacher grade chairman pod leader team leader	17 director	34 supervisor	
03 aide teacher aide paraprofessional	18 instructor	35 therapist (<u>not</u> speech)	
04 assistant teacher teaching assistant	19 intern internship	36 tutor	
05 student or practice teaching	20 lecturer	37 teacher trainer	
06 participation observation	21 librarian, college	38 teacher <u>and</u> admini- strator or chairman, etc.	
07 substitute per diem	22 librarian, public library	39 president	
08 administrative assistant	23 manager (<u>not</u> business)	40 L.P.N.	
09 administrator	24 principal (<u>not</u> summer school)	41 supply teacher	
10 advisor	25 professor (use if college and rank not specified)	42 "special"	
11 business manager , treasurer	26 psychologist	43 volunteer	
12 chairman	27 registrar	44 negotiator	
13 consultant	28 resource teacher	45 itinerant teacher	
14 coordinator	29 social worker	46 analyst (project)	
15 counselor	30 specialist	47 coach (drama)	
	31 summer school principal	48 headmaster	
	32 superintendent	49 developer	
		50 executive secretary	

E = Elementary
 S = Secondary
 EC = Elementary Combination
 SC = Secondary Combination
 M = Miscellaneous

- 001 Administration (E & S)
- 002 Art (S)
- 003 Business Education (S)
 Commercial Subjects (S)
- 004 Counseling (S)
 Guidance (S)
- 005 English (S)
- 006 Handicapped (Special Ed., etc.) (E & S)
- 007 Health (S)
- 008 Home Economics (S)
- 009 Humanities - Speech (S)
- 010 Industrial Arts (S)
- 011 Languages (S)
- 012 Library, Librarian (E & S)
- 013 Math (E & S)
 Arithmetic (E)
- 014 Music (E & S)
- 015 Physical Education (S)

- 016 Sciences (E & S)
 SAPA (E)
 Nature Study (E)
- 017 Social Studies (E & S)
 History (S)
- 018 Technical Subjects (S)
 Vocational Education (S)
- 019 Student Supervision (M)
 All Elementary (E)
 Basic Skills (E)
 Common Branch (E)
 Care (E)
 "Self-Contained" (E)
 All (M)
 General Subjects (M)
 CORE (M)
- 020 College Prep. (M)
- 021 Curriculum (M)
- 022 Driver Ed. (M)
- 023 ESL (M)
- 024 Medical Arts (M)
- 025 Practical Nursing (M)

- 026 Theology (M)
- 027 Business Ed. and Social Studies (SC)
- 028 English and Reading (SC)
- 029 English and Social Studies (SC)
- 030 English and Language (SC)
- 031 Language and Social Studies (SC)
- 032 Language and Theology (SC)
- 033 Math and Science (SC)
- 034 Health and Science (SC)
- 035 Science and Vocational Ed. (SC)
- 036 Individualized Instruction, IPI, IPS,
IP_ (E)
- 037 Language Arts (E)
Speech Arts (E)
Speech Improvement (E)
Verbal (E)
English, Reading, Spelling, etc. (E)
- 038 Reading (E & S)
- 039 Corrective Reading (E)
Remedial Reading (E)
- 040 Spelling (E)
- 041 Writing (E)
Penmanship (E)
- 042 Home School Program (M)
- 043 Bilingual and ESL (M)

- 044 Guidance and Reading (SC)
- 045
- 046 Camp
- 047 Federal Project (E & M)
Title I (E & M)
- 048 Special Project (E & M)
- 049 Three or more (SC)
- 050 Three or more (EC) DO NOT USE
- 051 Homebound (E & S)
Home Instruction (E & S)
- 052 Remedial Reading and Creative Dance (EC)
- 053 Administration and Social Studies (SC)
- 054 English and Language Arts (SC)
- 055 English and Humanities (SC)
- 056 Health and P.E. (SC)
- 057 Slow Learners (E)
- 058 Art and Industrial Arts (SC)
- 059 Guidance and Math (SC)
- 060 Art and Business Education (SC)
- 061 Curriculum and Social Studies (SC)
- 062 Sociology (M)
- 063 Art and Special Ed. (SC)

- 064 P.E. and Special Ed. (SC)
- 065 Lively Arts (S)
- 066 Administration and Math (SC)
Language and Math (SC)
- 067 Dance (S)
- 068 Dance and P.E. (SC)
- 069 Nursing (S)
- 070 Science and Social Studies (SC)
- 071 Audio-visual, Media (S)
- 072 Art and Reading (EC & SC)
- 073 Business Ed. and Math (SC)
English and Music (SC)
- 074 Administration and English (SC)
- 075 English and Math (SC)
- 076 Language Arts (S)
- 077 English and Religion (SC)
- 078 Education (S)
- 079 Philosophy (S)
- 080 Art and Social Studies (SC)
- 081 Human Development (S)
- 082 Math and Social Studies (SC)
- 083 Language Arts and Reading (EC & SC)

- 084 Arts & Crafts and Home Ec. (SC)
- 085 Language Arts and Social Studies (SC)
Reading and Social Studies (SC)
- 086 English and Home Ec. (SC)
- 087 P.E. and Science (SC)
- 088 Language and ESL (SC)
- 089 IPS and Science (SC)
- 090 Social Studies and Special Ed. (SC)
- 091 Reading and Science (EC)
- 092 Math and Music (SC)
- 093 English and Science (SC)
- 094 Agriculture (M)
- 095 Math and Special Ed. (SC)
- 096 Business Ed. and P.E. (SC)
- 097 Art and ESL (SC)
- 098 Health and Drug Abuse (SC)
- 099 Art and P.E. (SC)
- 100 Business Ed. and Language (SC)
- 101 Humanities and Social Studies (SC)
- 102 Driver Ed. and P.E. (SC)
- 103 Driver Ed. and Health (SC)

- 104 Language and Math (SC)
- 105 Math and Spelling (SC)
- 106 Guidance and Social Studies (SC)
- 107 Business Ed. and Driver Ed. (SC)
- 108 Business Ed. and Health (SC)
- 109 Language Arts and Science (SC)
- 110 P.E. and Social Studies (SC)
- 111 Language Arts and Math (SC)
- 112 Art and Remedial Reading (SC)
- 113 English and Library (SC)
- 114 English and Business Ed. (SC)
- 115 Anthropology (S)
- 116 Bilingual (M)
- 117 Computer Programming (M)
- 118 Computer Programming and Math (SC)
- 119 FLES (E)
- 120 Drug Ed. (S)
- 121 Music and Sociology (SC)
- 122 Humanities and Music (SC)
- 123 Language and Music (SC)
- 124 ESL and SSL (SC)

- 125 Language and Science (SC)
- 126 Religion and Social Studies
- 127 Health and Language (SC)
- 128 Language Arts and Religion (SC)
Fine Arts (M)
- 129 Math and Voc. (SC)
- 130 Core Subjects (M)
- 131 A.T.R. (EC)
- 132 Communications (M)
- 133 Language and Reading (SC)
- 134 Remedial Math (S)
- 135 Blind Students (M)
- 136 All Hebrew Subjects (M)
English and Remedial Reading (SC)
- 137 Industrial Arts and Social Studies (SC)
- 138 Highly Trainables (E)
- 139 P.E. and Vocational Ed. (SC)
- 140 Art and Science (SC)
- 141 Music and Science (SC)
- 142 Commercial Arts (M)
- 143 Language Arts and Language (SC)
- 144 Handicapped and Reading (SC)

- | | |
|--|---|
| 145 Reading and Resource (SC) | 165 English and Theology (SC) |
| 146 Reading and Science (SC) | 166 Discipline Teacher (M) |
| 147 Economics and Math (SC) | 167 Art and Home Ec. (SC) |
| 148 Economics (M) | 168 Language Arts and Remedial Reading (SC) |
| 149 Music and Reading (SC) | 169 Personnel Relations (M) |
| 150 Driver Ed. and Social Studies (SC) | 170 Math and Sociology (SC) |
| 151 ROTC (M)
Deaf Students | 171 English and Library (SC) |
| 152 English and Psychology (SC) | 172 Urban Education Program (S) |
| 153 Speech Clinic (M) | 173 Health and Math (SC) |
| 154 Bilingual Reading (E & M) | 174 Art and English (SC) |
| 155 National Teacher Corps (M) | 175 Science and Remedial Reading (SC) |
| 156 Math and P.E. (SC) | 176 Driver Ed. and Math (SC) |
| 157 Audio Visual and Science (SC) | 177 English and ESL (SC) |
| 158 Language Arts and Arts & Crafts (SC) | 178 Business Ed. and ESL (SC) |
| 159 Hotel Tech. (M) | 179 English and Handicapped (SC) |
| 160 ESL and Social Studies (SC) | 180 Health and Reading (SC) |
| 161 Language and Philosophy | 181 Teacher Corps (S) |
| 162 Playground (M) | 182 Industrial Arts and Math (SC) |
| 163 Hypnosis (M) | 183 Industrial Arts and Vocational Ed. (SC) |
| 164 Remedial Prog. (M) | 184 Health and Nursing (SC) |

- 185 High School Equivalency (M)
- 186 Humanities and P.E. (SC)
- 187 English and Bilingual (SC)
- 188 Safety (M)
- 189 Math and Remedial Reading (SC)
- 190 Music and Social Studies (SC)
- 191 Independent Study (S)
- 192 English and P.E. (SC)
- 193 Health and Music (SC)
- 194 Health and Home Ec. (SC)
- 195 Art and Humanities (SC)
- 196 Driver Ed. and Industrial Arts (SC)
- 197 Homeroom (S)
- 198 Music and P.E. (SC)
- 199 SSL (M)
- 200 Art and Vocational Ed. (SC)
- 201 Developmental Skills (S)
- 202 P.E. and Reading (SC)
- 203 Humanities and Language Arts (SC)
- 204 Open Education (M)
- 205 Continuing Education (M)

- 206 Math and Remedial Math (SC)
- 207 Math and Religion (SC)
- 208 Film Making (M)
- 209 English and Health (SC)
- 210 Economics and Sociology (SC)
- 211 ESL and Humanities (SC)
- 212 Art and Math (SC)
- 213 Business Ed. and Science (SC)
- 214 Health and Social Studies (SC)
P.E. and Industrial Arts (SC)
- 215 Careers (M)
Distributive Ed. and Business (SC)
- 216 Workshops (M)
Rel. and Commercial (SC)
- 217 ESL and Math (SC)
- 218 Guidance and Math (SC)
- 219 Reading and Social Studies (SC)
- 220 Language and Art (SC)
- 221 Math and Teacher Ed. (SC)
- 222 Engineering (S)

GRADES

3	K	01	Nursery	11	6	25	College
			Pre-School		11 year olds		University
5	1		Pre-Nursery				Graduate
			Pre-Kindergarten	12	ELEMENTARY		Higher Education
6	2		3, 4, and/or 5 year olds		Common Branch		Teacher Trainer
			Day Care		K-6		
7	3				Title 1	26	Adults
		02	Head Start		Any combination with a K-3		Adult Education
9	4				<u>and</u> a 4-6		Continuing Education
		03	Kindergarten				
10	5		Pre-First	13	MIDDLE SCHOOL	27	Adult Basic Education
			5 <u>and</u> 6 year olds		4-8		ABE
11	6				Any combination with a 4-6		High School Equivalency
		04	PRIMARY		<u>and</u> a 7-8		
15	7		K-3 K+1	14	JUNIOR HIGH SCHOOL	28	Correctional Facility
			Transition		Any combination 7-9		Detention
16	8		Pre-Second				Reform School
			Pre-Third	18	SENIOR HIGH SCHOOL		Prison
17	9		Any combination 1-3		High School	29	Child Migrant Program
			6-8 year olds		Any combination 9-12		Migrant Education
19	10				Ages teens to 21		
		05	1	22	SECONDARY	30	Any age range that is
20	11		6 year olds		7-12		<u>under and over</u> 21
		06	2		Any combination with a 7-8	31	Hospitals
21	12		7 year olds		<u>and</u> a 9-12	32	Foreigners; Immigrants
		07	3	23	K-12 (use if grades not	33	Peace Corps
			8 year olds		given)	34	Ages 3-12
		08	INTERMEDIATE		Any combination with a K-6	35	Boces
			Any combination 4-6		<u>and</u> a 7-12 (<u>not</u> covered	37	N-K
			Any combination 8-12		<u>in #13)</u>	38	Community Center
			year olds		Public School	39	Technical High School
		09	4	24	Community College	40	Military Schools
			9 year olds		Junior College	41	Anti-Poverty
		10	5		13, 14	42	Development Center
			10 year olds				

Subjects

BUSINESS

Accounting
Advertising Design
Business Law
Business Math
Comm. Ed.
Dist. Ed.
Elem. Machine
Office Practice
Stenography
Typing

VOC. & TECH.

Automotive
Coop. Ed.
Drafting
Elec.
Food Prep.
Mech. Drawing
Acc. Ed.
Voc. Ed.
Wood Shop

SOCIAL STUDIES

American History
American Studies
Afro-Asian Studies
Afro Studies
Anthropology
Citizenship
Civics
Economics
European S.S.
Geography
Government
History
World Cultures
Map Skills
Religion
Polit. Sci.
World History
Psych.
Western Civ.

ENGLISH

Afro-American Lit.
American Lit.
Black Lit.
Creative Writing
European Lit.
Journalism

LANGUAGE

French

German

Hebrew

Latin

Italian

Russian

Spanish

MATH

Algebra

Calculus

Geometry

Trig.

SCIENCE

Biology

Chemistry

Earth Sci.

General Sci.

Life Sci.

Physics

Physical Sci.

Botany

Genetics

Ecology

Environmental
StudiesCOUNSELING

Guidance

HUMANITIES

Comm. Arts

Drama

Debate

Film

Speech

Theater

Theater Mgt.

PHYS. ED.

Basketball

Baseball

Track, etc.

Fencing

Recreation

Playground

Sports

Swimming

HEALTH

Comm. Health
Dental Hygiene
Drug Project
First Aid
Health Science
Hygiene

HANDICAPPED

Blind
Deaf
Emot. Dist.
Learning Disab.
Retarded
CRMD
MR
MH
EMR
EMH
TMR
TMH
Trainable
Special Ed.
Sp. & H.
Ment. Hand.
Speech & Language
Therapy
Speech Path.
Hearing Imp.

LIBRARY

Library Science
Library Skills

CARD ONE

<u>ITEM</u>	<u>VARIABLE NUMBER</u>	<u>COLUMNS</u>	<u>DESCRIPTION</u>
I.D. NO.		1-4	
2		5-6	State
3		7-8	Certification
4		9	Multiple
5		10	Sex
6		11-12	Year of Birth
7	VAR 1	13-15	Institution
8	VAR 2	16-17	State
9	VAR 3	18	Credits
10	VAR 4	19-20	Degree
11	VAR 5	21-22	Date
12	VAR 6	23-25	Institution
13	VAR 7	26-27	State
14	VAR 8	28	Credits
15	VAR 9	29-30	Degree
16	VAR 10	31-32	Date
17	VAR 11	33-35	Institution
18	VAR 12	36-37	State
19	VAR 13	38	Credits
20	VAR 14	39-40	Degree
21	VAR 15	41-42	Date
22	VAR 16	43-45	Institution
23	VAR 17	46-47	State
24	VAR 18	48	Credits
25	VAR 19	49-50	Degree
26	VAR 20	51-52	Date
42	VAR 21	53-54	State
43	VAR 22	55-56	Date
44	VAR 23	57-58	Date
45	VAR 24	59-60	Subjects
46	VAR 25	61-62	State
47	VAR 26	63-64	Date
48	VAR 27	65-66	Date
49	VAR 28	67-68	Subjects
50	VAR 29	69-70	State
51	VAR 30	71-72	Date
52	VAR 31	73-74	Date

<u>ITEM</u>	<u>VARIABLE NUMBER</u>	<u>COLUMNS</u>	<u>DESCRIPTION</u>
53	VAR 32	75-76	Subjects
Card No. (one)		80	Number One

CARD TWO

I.D. NO.		1-4	
58	VAR 33	5-6	State
59	VAR 34	7-8	Subjects
60	VAR 35	9-13	Levels
61	VAR 36	14-17	Years
62	VAR 37	18-19	State
63	VAR 38	20-21	Subjects
64	VAR 39	22-26	Levels
65	VAR 40	27-30	Years
66	VAR 41	31-32	State
67	VAR 42	33-34	Subjects
68	VAR 43	35-39	Levels
69	VAR 44	40-43	Years
70	VAR 45	44-45	State
71	VAR 46	46-47	Subjects
72	VAR 47	48-52	Levels
73	VAR 48	53-56	Years
74	VAR 49	57	Excess Info
75	VAR 50	58-63	Date
Card No. (two)		80	Number Two

TABLE NUMBER 1
Identification of Errors in Primary and Secondary Samples

CARD ONE ERRORS

ID #	Columns	Description	Variable	Primary	Secondary
2	5-6	State			32 (9E) *9
4	9	Multiple			0 (3E) *3
5	10	Sex			0 (4E) , 3 (1E) *5
6	11-12	Year of Birth		0 (1E) *15	7 (1E) , 74 (1E) *2
8	16-17	State	02		
13	26-27	State	07	*2	81 (1E) *1
16	31-32	Date	10	71 (1E) , 77 (1E) *2	75 (2E) *2
20	39-40	Degree	14		98 (1E) *1
21	41-42	Date	15	75 (2E) , 87 (1E) *3	75 (3E) *3
26	51-52	Date	20	75 (2E) *2	
42	53-54	State	21	73 (1E) , 79 (1E) *2	NYC
43	55-56	Date	22	7 (1E) , 12 (1E) , 77 (1E) *3	75 (1E) , 78 (1E) *2
44	57-58	Date	23	1 (1E) , 12 (1E) , 20 (4E) *6	
46	61-62	State	25	87 (1E) , 97 (1E) *2	
47	63-64	Date	26	76 (1E) *1	6 (1E) , 88 (1E) *2
50	69-70	State	29		72 (8E) *8
51	71-72	Date	30	76 (1E) , 77 (1E) *2	
52	73-74	Date	31	29 (1E) , 97 (1E) *2	

CARD TWO ERRORS

ID #	Columns	Description	Variable	Primary	Secondary
62	18-19	State	37	80(1E), 90(10E) *11	90(1E) *1
66	31-32	State	41	72(1E), 74(1E) *2	
70	44-45	State	45	83(1E) *1	
74	57	Excess Information	49	9(2E) *2	

Subtotals

TOTAL 121

IN

2920 - #5 - 7
6795 - #6 - 0
90 - #6 - 90
1465 - #8 - 72
850 - #16 - 77
5620
6320 - #21 - 75

4690
7170 - #26 - 75

1085 - #42 - 79
1100 - #43 - 7
3890 - #47 - 76
- #51 - 76
3805 - #52 - 29
90 - #62 - 90
6710 - #66 - 72

448
634
2148
2913
3261 - #2 - 9
3411
5407
6496
7522

2694
4312 - #4 - 0
5653

1693
2676
4133 - #5 - 0
5653

OUT

3 - #5 - 3
2638 - #6 - 7
2212 - #13 - 81
2027
6182 - #16 - 75

1167 - #20 - 98

46
3766 - #21 - 75
5988

46 - #43 - 75
3593 - #47 - 6

218
892
896
2148
2197 - #50 - 72
2406
3059
3666

204 - #62 - 90

297

298

TABLE NUMBER 2
ANALYSIS OF ERRORS IN PRIMARY AND SECONDARY SAMPLES

Primary

Applicant ID	ID/Description of Variable	Errors	Recording	Keypunching	Explanation
2920	#5, Sex	7(1)		X	A clear coding of 1 for female is in the recording frame.
6795	#6, Year of Birth	0	Information not available in State Education Department files.		1973 was listed on the application form.
0090	#6, Year of Birth	90(36)		X	The recording frame has a clear figure of 36.
1465	#8, State	72(32)	X		The number 72 is used only for coding certification in New York City.
0850	#16, Date	77(71)	X		The degree was conferred in 1971.
5620	#21, Date	75		CORRECT	This number indicates the projected year for conferral of the master's degree.
0320	#21, Date	75		X	The recording frame is empty.
4690	#26, Date	75		CORRECT	This number indicates the projected year for conferral of the master's degree in library science.
7170	#26, Date	75		CORRECT	This number indicates the projected year for conferral of the master's degree.

Applicant ID	ID/Description of Variable	Errors	Recording	Keypunching	Explanation
1085	#42, Date	79 (72)	X		Although it is difficult to determine the number, it is possible to infer 72 since all of the applicant's certificates were issued by New York City and New York State.
1100	#43, Date	07 (67)	X		Probably difficult to read, but still possible to infer 1967 effective/expiration date.
3890	#47, Date	76	X		Two certificates issued for day school teaching in New York City have expiration dates of 1976. The effective date of the certificate is 1971.
3805	#52, Date	29	X		The expiration date for the provisional certificate is difficult to read, but it is 79.
0090	#62, State	90 (30)		X	Recording frame has a clear, 30 for New Jersey.
6710	#66, State	72	X		Recording frame has a clear 72 for New York City instead of 32 for New York State certificate.

ANALYSIS OF ERRORS IN PRIMARY AND SECONDARY SAMPLES

Secondary

Applicant ID	ID/Description of Variable	Errors	Recording	Keypunching	Explanation
0448	#2, State	32 (45)	X		The number 32 is used for New York State. The applicant lives in Vermont (45).
0634	#2, State	32 (30)	X		The applicant lives in New Jersey (30).
2148	#2, State	32 (30)	X		The applicant lives in New Jersey (30).
2913	#2, State	32 (53)	X		The applicant lives in Puerto Rico (53).
3261	#2, State	32 (38)	X		The applicant lives in Pennsylvania (38).
3411	#2, State	32 (38)	X		The applicant lives in Pennsylvania (38).
5407	#2, State	32 (05)	X		The applicant lives in California (05).
6496	#2, State	32 (38)	X		The applicant lives in Pennsylvania (38).
2694	#4, Multiple	0	X		The applicant received only one certificate, therefore, the code was changed from 0 to 1.
4312	#4, Multiple	0	X		The applicant received only one certificate, therefore, the code was changed from 0 to 1.

Applicant ID	ID/Description of Variable	Errors	Recording	Keypunching	Explanation
5653	#4, Multiple	0	X		The applicant received only one certificate, therefore, the code was changed from 0 to 1.
1093	#5, Sex	0(2)		X	The recording frame has a 2 for male.
2676	#5, Sex	0(2)	X		The symbol for male (M) is circled on the recording form.
4133	#5, Sex	0(1)	X		The symbol for female (F) is circled on the recording form.
5653	#5, Sex	0(1)	X		The symbol for female (F) is circled on the recording form.
0003	#5, Sex	0(1)		X	The symbol for female (F) is circled on the recording form.
2638	#6, Year of Birth	67(07)	X		1949 listed as year of birth on application form.
2212	#13, State	81	X		The number is difficult to determine from the form. The application lists 51 for District of Columbia.
2027	#16, Date	75		CORRECT	Certification (81) was granted on 6/11/74.
6182	#16, Date	75		CORRECT	The projected date for completion of the bachelor's is probably a mistake. The applicant has 4 teaching certificates, one issued as early as 1968.

Applicant ID	ID/Description of Variable	Errors	Recording	Keypunching	Explanation
1167	#20, Degree		X		15 hours toward certification in reading. Correct, but our code for degrees only goes to 97.
0046	#21, Date	75		CORRECT	The applicant has taught since 1970.
3766	#21, Date	75		CORRECT	Projected date for completion of master's degree.
5988	#21, Date	75		CORRECT	Projected date for completion of master's degree.
0046	#43, Date	75		CORRECT	No expiration date is listed for the certificate.
3593	#47, Date	06 (72)		X	The number 72 is clear in the recording frame.
0218	#50, State	72		CORRECT	This code is used for New York City.
0892	#50, State	72		CORRECT	" " "
0896	#50, State	72		CORRECT	" " "
Missing 2148	#50, State	72		CORRECT	" " "
2197	#50, State	72		CORRECT	" " "
2406	#50, State	72		CORRECT	" " "
3059	#50, State	72		CORRECT	" " "
Missing 3666	#50, State	72		CORRECT	" " "
0204 307	#62, State	90			Our codes for states, countries and geographic regions stop at 71. In addition, the recording frame is empty. 308

TABLE NUMBER 3
Identification of Cards Corrected

PRIMARY SAMPLE

<u>Identification Number</u>	<u>Card Number</u>
2920	1
6795	1
0090	1&2
1465	1
0850	1
0320	1
1085	1
1100	1
3890	1
3805	1
6710	2

SECONDARY SAMPLE

<u>Identification Number</u>	<u>Card Number</u>
0448	1
2148	1
2913	1
3261	1
3411	1
5407	1
6496	1
2694	1
4312	1
5653	1
0003	1
2638	1
2212	1
1167	1
3593	1
0204	2